THE BRITISH FLORA,

OR

A LINNEAN ARRANGEMENT

OF

BRITISH PLANTS.

WITH THEIR

GENERIC AND SPECIFIC CHARACTERS,

SELECT SYNONYMS,

ENGLISH NAMES,

PLACES OF GROWTH,

DURATION,

TIMES OF FLOWERING,

AND

REFERENCES TO FIGURES.

BY JOHN HULL, M. D.

Member of the Corporation of Surgeons, and of the Physical Society of London; of the Natural History Society of Edinburgh; and Secretary of the Literary and Philosophical Society of Manchester.

PART I.

Manchester,

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PART I.

London:

PRINTED BY S. LEIGH-GARDNER, BY PLEASANT TO, BARTLETT'S BUILDINGS, HOLBORN.

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TO THE

REV. W. BARTON, A. B. M. D.

THIS VOLUME IS INSCRIBED,

AS A TESTIMONY OF AFFECTIONATE REGARD,

AND

AS AN ACKNOWLEDGMENT OF THE

PLEASURE AND ADVANTAGE,

DERIVED FROM HIS SOCIETY, IN NUMEROUS

BOTANICAL EXCURSIONS,

BY HIS SINCERE FRIEND,

THE AUTHOR.

Brazen-Nose Street,
Manchester, Jan. 1, 1799.

TO THE

REV. W. BARTON, A. B. M. D.

PREFACE.

The numerous corrections and additions, which the catalogue of British plants has of late received, in consequence of the prevailing taste for botanical pursuits, having rendered the Enchiridion Botanicum of Broughton, and all similar publications, very insufficient for the purposes of the practical botanist, the Author was induced, in the beginning of last year, to prepare the volume, now offered to the publick, for the press.

Had he then been apprized, that a Pocket Flora would so soon appear by another hand, he would have relinquished his undertaking; but having nearly completed the work, before the Synopsis of Mr. Symons was announced for publication; and finding that work written in the Latin language, less comprehensive in its plan, and not continued through the three last Orders of the Class Cryptogamia, he could not consider it, as superseding the necessity of this volume; which, he flatters himself, will prove an useful companion in a botanical excursion.

In the *Catalogue* here given will be found all the *Species* contained in the third edition of Dr. Withering's very valuable work on the botany of these kingdoms, together with such ad-

ditional ones, as have been since discovered and ascertained. All the *Varieties* also are given, except those depending merely upon size, or colour.

In the *Arrangement* the Author has adhered strictly to the method established by the justly celebrated Linnæus, in preference to the reformed system of Professor Thunberg; although this has been adopted on the continent, by Haenke in his edition of the Genera Plantarum, and by Willdenow in his Floræ Berolinensis Prodromus; and in this kingdom by Sibthorp, Withering, and Symons. That he may not unnecessarily add to the size of this volume, he will assign his reasons for this, and give some observations on the botanical language, here employed, in the Preface to a work, containing an Introduction to Botany, and the Natural Characters of the Genera of British Plants, which is now in the press; and will content himself with giving here the following short statement of the plan of the British Flora.

The *Genera* are numbered in the same manner, as in Reichard's edition of the Genera Plantarum, and the fourteenth edition of the Systema Vegetabilium, published by Murray, at Göttingen, in 1784.

The *Characters* are in general translated from the works of Linnæus, and chiefly from the Systema Vegetabilium. Where Linnean characters are wanting, the deficiency has been supplied from the works of Hudson, Lightfoot, Withering, Dickson, Smith, the Linnean Transactions, &c. &c. With these are occasionally given some additional distinctive marks, either included in a parenthesis, or subjoined as an observation.

To each *Species* is added,

1. The *English Name*; except in the three last orders of the Class Cryptogamia, where they have been almost universally omitted, because they are mere translations, and not properly established.

2. The *General Habitation*, or *Situation*; in which it is found,

nd in some instances where the plant is very rare, the particu-
ar place is indicated.

3. The *Duration:* which is expressed by the initials of the words Annual, Biennial, Perennial, Shrub, Tree.

4. The *Season*, or *Months of Flowering:* the months being expressed by numbers, e. g. January by 1, February by 2, &c. &c.

5. A *Reference to some Figure, or Figures.* In general one figure only is referred to, and in some instances an inferior English figure has been preferred to a superior foreign one, as being more accessible to the generality of readers. When two or more are given, the first place has not always been assigned to the best.

The *Synonyms* of Hudson, Lightfoot, and Withering, are also constantly added, when they differ from the Linnean name, or from each other. And the Synonyms of other authors are frequently given, especially in the Class Cryptogamia.

To such species as are *doubtful natives*, a note of interrogation affixed.

ABBREVIATIONS.

Flor.	Floret.	Androg.	Androgynous.
Flow.	Flower.	Polyg.	Polygamous.
Cal.	Calyx.	Var.	Variety.
Cor.	Corol.	Spr.	Spring.
Pet.	Petal.	Sum.	Summer.
Nect.	Nectary.	Aut.	Autumn.
Stam.	Stamen.	Col.	Colour, or coloured.
Filam.	Filament.	Com.	Common.
Anth.	Anther.	Mount.	Mountain, mountainous.
Pist.	Pistil.	Past.	Pastures.
Germ.	Germen.	Calc.	Calcareous.
Stig.	Stigma.	Sea sh.	Sea shore.
Fr.	Fruit.	Pl.	Places.
Fructif.	Fructification.	Sit.	Situations.
Papp.	Pappus.	Gr.	Ground, or grass.
Caps.	Capsule.	Fol.	Foliage.
Pan.	Panicle.	Head.	Headed.
Recept.	Receptacle.	Grav.	Gravelly.
Spikel.	Spikelet.	Cornfi.	Cornfields.
Involl.	Involucre.	Riv.	River, or rivulets.
M.	Male.	Plant.	Plantations.
Fem.	Female.	Mead.	Meadows.
Herm.	Hermaphrodite.		

A

CATALOGUE

of

Books referred to in this Work.

Aiton. Hortus Kewensis. Lond. 1789. 8vo. 3 vol.
Allion. Allionii Flora Pedemontana. fol. tom. 3.
Allion. stirp. Allionii Rariorum Pedemontii Stirpium Specimen. 1755. 4to.
Barr. Barrelieri Plantæ per Galliam, &c. 1714. fol.
Baster. Jobi Basteri Opuscula, &c. Harlem. tom. 2.
Batsch. Elenchus Fungorum. 1789. 4to. fasc. 3.
Battar. Battaræ Fungorum Agri Arim., &c. 1759. 4to.
Blackst. Blackstone Specimen Botanicum. 1746. 12mo.
Blackw. Herbarium Blackwellianum, &c. tom. 6.
Boccon. Boccone Icones & Descrip. &c. 1674. 4to.
Bolt. Bolton's Filices Britannicæ, &c. 4to.
Bolt. Bolton's Hist. of Fungusses. 4to. 3 vols. & App.
Bolt. dr. Bolton's Drawings of British Fungusses.
Bryant Hist. Acc. of Two Species of Lycoperdon. 1783. 8vo.
Bull. Bulliard Champignons de la France. fol.
Buxb. Buxbaumii Plantarum, &c. Cent. 5. 4to.
Cam. epit. Camerarii de Plantis Epitome, &c. 1586. 4to.
Cavan. J. Cavanillis Dissertationes, &c. 4to. tom. 2.
Col. ecphr. F. Columnæ Lyncei Ecphrasis, &c. 1616. 4to.
Curt. Curtis's Flora Londinensis. fol. vol. 2.
Dicks. J. Dickson Fasciculi Pl. Crypt. Britan. 3. 4to.
Dill. Dillenii Historia Muscorum. Oxon. 4to.
Dill. Elth. Ejusdem Hortus Elthamensis. Lond. fol. tom. 2.
Dod. Dodonæi Stirpium Historiæ. 1616. fol.
E. Bot. English Botany published by Sowerby. 8vo. Numbers.
F. Dan. Icones Plantarum Daniæ, &c. fol. tom. 6.
Fl. Lap. Linnæi Flora Lapponica. Ed. 2. Lond. 1792.
Fl. Suec. Ejusdem Flora Suecica. Ed. 2. Holm. 8vo.
Fl. Ross. Flora Rossica. Petropoli. Part. 2.
Gærtn. Gærtner de Fructibus & Seminibus. 4to. tom. 2.
Tom. i. Stutgardiæ, 1788. Tom. ii. Tubingæ, 1791.

Gent. Mag. Gentleman's Magazine. 8vo.
Ger. Gerard's Herball, &c. by Johnson. 1636. fol.
Gerard. Gerard's Historie of Plants. 1597. fol.
Ger. prov. Lud. Gerardi Flora Gallo-provincialis. 1761. 8vo.
Gmel. Gmelin Systema Naturæ. Ed. 13. Lipsiæ.
Gmel. fl. Gmelin Flora Sibirica. 4to. tom. 4.
Gmel. fuc. Gmelin (S. G.) Historia Fucorum. 1768. 4to.
Gouan. Gouani Flora Monspeliaca. Lugd. 1765. 8vo.
Gram. pasc. Swayne's Gramina Pascua. 1790. fol.
Gunn. Gunneri Flora Norvegica. Part 2. fol.
Hagen. Tentamen Historiæ Lichenum. 1782. 8vo.
Hall. Hist. Halleri Hist. Stirp. Indig. Helv. fol. tom. 3.
Hall. en. Ejusdem Enumeratio Methodica, &c. fol. tom. 2.
Hedw. Hedwigii Descriptio et Adumbratio, &c. fol.
Hedw. hist. Ejusdem Fundamentum Historiæ Musc. 4to.
Hist. de l'ac. Histoire de l'Academie, &c. Paris.
H. ox. Morisoni & Bobartii Hist. Plant. Oxon. 1699.
Hoffm. Hoffmanni Descriptio, &c. Lipsiæ. fol.
Hoffm. en. Hoffmanni Enumeratio Lichenum. 4to. fasc. 3.
Hoffm. sal. Hoffmanni Historia Salicum. Lipsiæ.
Huds. G. Hudsoni Flora Anglica. Ed. 2. 1778. tom. 2.
Hunt. Evelyn's Sylva. By Hunter. Ed. 2. 4to. 2 vols.
Jacq. Aust. Jacquin Flora Austriaca. fol. tom. 5.
Jacq. coll. Ejusdem Collectanea. 4to. tom. 4.
Jacq. hort. Ejusdem Hortus Vindobonensis. fol. tom. 3.
Jacq. misc. Ejusdem Miscellanea Austriaca. 4to. tom. 2.
J. B. Bauhini Historia Plantarum. 1650. fol.
Kniph. Kniphoff Botanica. Cent. 12. fol.
Leers. Flora Herbornensis. Berol. 1789. 8vo.
L'Heritier. Geranologia. Paris. 1788.
Lightf. Lightfoot's Flora Scotica. 1777. 8vo. tom. 2.
Lin. Caroli Linnæi Opera.
Linn. fil. C. a Linne filii Methodus Muscorum. 1781. 4to.
Lin. Tr. Transactions of the Linnean Society. Lond. vol. 4.
Lob. ic. M. Lobelii Icones Plantarum. Antw. 4to.
Mart. Martyn's Flora Rustica. 8vo. vol. 4.
Mich. Micheli Nova Plantarum Genera. 1729. fol.
Mill. pl. Miller's Plates to his Gardener's Dictionary. fol.
Munt. Muntingii Phytographia, &c. 1702. fol.
Murray. Systema Vegetabilium. Ed. 14. Gottingæ. 1784.
Park. Parkinson's Theatrum Botanicum. 1640. fol.
Park. par. Parkinson's Paradisus Terrestr. 1629. fol.
Pers. C. H. Persoon Linnæi Syst. Veg. Ed. 15. Gottingæ.
Pers. Tent. Ejusdem Tentamen Dispositionis Methodicæ Fungorum, &c. Lipsiæ. 8vo. 1797.
Pers. Com. Ejusdem Commentatio de Fungis Clavæformibus, &c. Lipsiæ. 8vo. 1797.
Pet. Petiveri Herbar. Britannic. Lond. fol.
Phil. Trans. Philosophical Transactions. Lond. 4to.

Pollich. Historia Plantarum in Palat. Elect. tom. 3.
Pluk. Plukenetii Almagestum & Phytographia. 4to.
Ray. Raii Historia. 1704. fol. tom. 3.
Ray syn. J. Raii Synopsis Methodica, &c. Ed. 3. 1724. 8vo.
Relh. Relhani Flora Cantabrigiensis, &c. 1785.
Relh. sup. Ejusdem Supplementa 3.
Retz. Retzii Observationes Botanicæ. fol. fasc. 6.
Schæf. Schæfferi Fungorum qui in Bavaria, &c. 4to. tom. 4.
Scheuch. Scheuchzeri Agrostographia, &c. 4to.
Scheuch. prod. Agrostogrophiæ Helveticæ Prodromus. 1708.
Schmid. Schmidel Icones Plantarum, &c. fol.
Schreb. Schreber Beschreibung der Grasen. 1774. fol.
Schreb. Schreber Genera Plantarum. 8vo. tom. 2.
Schreb. ph. Schreber de Phasco. 1770. 4to.
Schreb. Fl. Lips. Schreberi Spicilegium Floræ Lipsiæ. 8vo.
Scop. Scopoli Flora Carniolica, &c. 1772. 8vo. tom. 2.
Scop. subt. Scopoli Plantæ Subterraneæ. 12mo.
Sheldr. Sheldrake's Herbal of Medicinal Plants. fol.
Sibth. Sibthorp Flora Oxoniensis. 8vo.
Smith. Dr. J. E. Smith—Sowerby's English Botany.
Smith. ic. Ejusdem Icones Pictæ Plant. Rar. fol.
Sow. Sowerby's Coloured Figures of English Fungi. Numb.
Sp. Pl. Linnæi Species Plantarum. Ed. 2. 8vo. tom. 2.
Stackh. Stackhouse Nereis Britannica. fol. fasc. 2.
Symons. Synopsis Plantarum, &c. 1798. 8vo.
Syst. Nat. Linnæi Systema Naturæ. Ed. 10. 1759.
Vaill. Vaillant Botanicon Parisiense. 1727. fol.
Velley. Velley's Coloured Fig. of Marine Plants. fol.
Weber. Spicilegium Floræ Gœttingensis. Gothæ. 1778. 8vo.
Weig. Weigel Observationes Botanicæ. 1772. 4to.
Weis. Plantæ Cryptogamicæ Fl. Gotting. 1770. 8vo.
Wiggers. Primitiæ Floræ Holsaticæ. 1780. 8vo.
With. Withering's Arrangement of British Plants. Ed. 3. 1796. Vol. 4. 8vo.
Willden. C. L. Willdenow Floræ Berolin. Prod. 8vo. 1787.

CLASS I.

MONANDRIA.

MONOGYNIA.

10. SALICOR'NIA. *Calyx* 1-leaved. *Coral* none.

11. HIPPU'RIS. *Cal.* none. *Corol* none.

(III. *Valeriana rubra.* IV. *Aphanes.* XX. *Zostera. Ophrys spiralis, & ovata.* XXI. *Chara.* XXII. *Salix monandra.*)

Obs. The figures III. IV. &c. prefixed to *Valeriana*, *Aphanes*, &c. denote the Classes, in which they are arranged.

DIGYNIA.

13. CALLIT'RICHE. *Calyx* none. *Coral* 2-petalled. *Capsule* 2-celled.

TETRAGYNIA.

(XXII. *Zanichellia.*)

MONOGYNIA.

10. SALICOR'NIA. *Cal.* ventriculous, entire. *Petals* none. *Seed* 1.

1. S. Joints thicker at the summit, compressed, emarginato-bifid. HUDS. *europæa.*

Var. 1. *annua.* α. herbacea HUDS. Joints compressed, emarginate; internodes obconical, branches opposite, spikes cylindrical. (*Flowers* three near together, on both sides of the joints. BAUER.) S. *annua.* Smith. S. *herbacea.* Lin. Lightf. With. See Ray syn. 136. 1. *Marsh Samphire.* Sea shore. A. 8. 9. *E. B.* 415.

——— 2. β. Huds. Erect, branches short, cypress-form. DILL. in Ray syn. 137. 3.

——— 3. γ. fruticosa HUDS. Perennial, more shrubby, procumbent. RAY syn. 136. 2.

Var. 4. δ. Huds. Mouse-tail-like, procumbent, shoots very long. DILL. in Ray 137. 4.

—— 5. ε. Huds. More branched, procumbent, branchlets short, purplish. DILL. in R. 137. 4.

Obs. Dr. Smith is of opinion, that the above varieties are specifically distinct. ENGLISH BOTANY, page 415.

11. HIPPU'RIS. *Cal.* 0. *Pet.* 0. *Stigma* simple. *Seed (Nut)* 1. (*Calyx* superior, very minute. *Cor.* 0. *Stamen* inserted in the pistil. *Seed* 1. Willden.)

vulga'ris. 1. H. Leaves 8 (—13) together.

Common Mare's-tail. Ditches, &c. P. 4—6. *Curtis.*

Obs. Hippuris is considered as gynandrous by Willdenow, and Sibthorp, and if we admit the Linnean character, with great propriety, as the stamen must necessarily arise from some part of the pistil; but we are informed by Schreber, that the germen is crowned by a small calyx with a 2-lobed margin, within which the stamen is inserted. See Genera Plant. page 8. Curtis has occasionally found female flowers upon this plant.

DIGYNIA.

13. CALLIT'RICHE. *Cal.* 0. *Pet.* 2. *Caps.* 2-celled, 4-seeded.

aquat'ica. 1. CALLITRICHE. Huds. Sibthorp.

Var. 1. *verna* α. Huds. Sibth. Upper leaves oval, flowers (generally) androgynous. C. *verna* Lin. With. Relh. See Ray syn. 289. 1.

Vernal Stargrass. Ditches. A. 4—8. *Dill. Giss.* 6.

Var. 2. *terrestris* β. Huds. Sibth. All the leaves oval, roundish, or cuneiform, petioled, flowers androgynous, or polygamous. See Ray syn. 289. 2.

— Moist places. 4—8. *F. Dan.* 129. *Col. ecphr.* 316.

—— 3. *autumnalis* γ. Huds. Sibth. All the leaves linear, bifid at the end, flowers (not always) hermaphrodite. C. *autumnalis* Lin. With. Relhan. See Ray syn. 290. 3.

Autumnal Stargruss. Still waters. A. 5—9. *Pet.* 6. 4.

Obs. The figure of the leaves varies, according as the plant is more or less completely submersed, &c. thus Var. 1. passes into Var. 2. when growing in moist places, which have been overflowed in the winter; and in the botanic garden at Oxford has been observed to change into Var. 3.; so that however different the plants, belonging to this genus, may appear in the form of their leaves, mode of fructification, or time of flowering, there is not any good ground for considering them, as specifically distinct.—Hudson has transferred Callitriche to the Class Polygamia.

CLASS II.

DIANDRIA.

MONOGYNIA.

(III. *Schœnus albus, & mariscus.* XV. *Lepidium ruderale.* XX. *Orchis. Satyrium. Ophrys. Malaxis. Serapias. Cypripedium.* XXI. *Lemna.* XXII. *Salix.* XXIII. *Fraxinus.*

1. *Flowers inferior, 1-petalled, regular.*

18. LIGUS'TRUM. *Cor.* 4-cleft. *Berry* 4-seeded.

2. *Flowers inferior, 1-petalled, irregular.*

A. Fruit capsular.

25. VERO'NICA. *Cor.* Limbus 4-parted, lowest segment narrower.

30. PINGUIC'ULA. *Cor.* ringent, spurred. *Cal.* 5-cleft.

31. UTRICULA'RIA. *Cor.* ringent, spurred. *Cal.* 2-leaved.

B. Seeds naked.

32. VERBE'NA. *Cor.* nearly equal. *Cal.* highest segment shorter.

33. LY'COPUS. *Cor.* nearly equal. *Stam.* distant.

39. SAL'VIA. *Cor.* ringent. *Filaments* fixed transversely on a pedicel.

(I. *Salicornia.*)

3. *Flowers superior.*

24. CIRCÆ'A. *Cal.* 2-leaved. *Cor.* 2-petalled. *Pet.* obcordate.

DIGYNIA.

42. ANTHOXAN'THUM. *Cal.* glume one-flowered, oblong. *Cor.* glume awned.

(IV. *Bufonia.* XX. *Serapias.* XXI. *Carex atrata.*)

MONOGYNIA.

18. LIGUS'TRUM. *Cor.* 4-cleft. *Berry* (2-celled) 4-seeded.

vulga're. 1. L. Leaves lanceolate, acute, pedicels of the panicle opposite. (Leaves ovate, obtuse, panicle simply trichotomous. THUNB.)
Privet. Hedges. S. 6. 7. *Curt.* 300.

25. VERO'NICA. *Cor.* limbus 4-parted, lowest segm. narrower. *Caps.* 2-celled, emarginate.

1. *Spiked.*

spica'ta. 1. V. Spike terminating, leaves opposite, crenate, obtuse, stem ascending, very simple. (Stam. much longer than the corol, orifice of the tube of the corol bearded.)
Spiked Speedwell. Mount. pastures. P. 6. *E. Bot.* 2.

hy'brida. 2. V. Spikes terminating, leaves opposite, obtusely serrated, rough, stem erect. V. *spicata* β. hybrida HUDS.
Welch Speedwell. On rocks, &c. P. 7, *Ray* 11.

officina'lis. 3. V. Spikes lateral, peduncled, leaves opposite, stem procumbent.
Common Speedwell. Hedge-banks. P. 5—8. *Curtis.*

Obs. V. *arvensis* & *verna* are referred to this division by Withering.

2. *Corymboso-racemous.*

alpi'na. 4. V. Corymb terminating, leaves opposite (ovate, smooth, serrulated), calyxes hispid. (Stem simple, ascending. E. BOT.)
Alpine Speedwell. Ben Nevis. P. 7—8. *E. Bot.* 484.

saxat'ilis. 5. V. Corymb terminating, leaves opposite, smoothish (nearly ovate, somewhat crenate), peduncles longer than the floral leaves.
— Ben Lawers. DICKSON. S. 6. 7. *F. Dan.* 342.

serpyllifo'lia. 6. V. Raceme terminating, somewhat spiked, leaves ovate, smooth, crenate (3-fibred, stamens scarcely longer than the corol).
Smooth Speedwell. Pastures, &c. P. 5. *Curtis.*

humifu'sa. 7. V. Raceme terminating, leaves cordate, but roundish, slightly crenate, stems creeping. DICKS.
— Mountains of Lochaber, &c. — ——

Beccabun'ga. 8. V. Racemes lateral, leaves ovate, flat, stem creeping.
Brooklime. Shallow streams, P. 6. *Curt.*

9. V. Racemes lateral, leaves lanceolate, serrated, stem erect. *Anagal'lis.*
—— Old pits, &c. A. 6—8. *Curt.*

10. V. Racemes lateral, alternate, pedicels pendulous, leaves linear, very entire. (Racemes slender, wide-spreading, thinly set with flowers. With.) *scutella'ta.*
Narrow-leav. Sp. Boggy places. P. 6—8. *Curt.*

11. V. Racemes lateral, few-flowered, calyxes hirsute, leaves ovate, wrinkled, crenate, petioled, stem weak. *monta'na.*
Mountain Speedwell. Woods. P. 5—6. *Curtis.*

12. V. Racemes lateral, leaves ovate, sessile, wrinkled, toothed, stem with two opposite rows of hairs. (Calyx-leaflets unequal, lanceolate.) *Chamæ'drys.*
Wild Germander. Hedge-banks. P. 5. *Curt.*

3. *Peduncles 1-flowered.*

13. V. Flowers solitary, leaves (petioled) cordate, incised, shorter than the peduncle. (Calyx-leaflets ovate, equal.) *agres'tis.*
Germander. Pastures, &c. A. 4. *Curtis.*

14. V. Fl. solitary, leaves cordate, incised, longer than the peduncle. (Calyx-leaflets lanceolate, unequal. Gouan. Spike terminating, leaves cordate, sessile, floral leaves lanceolate, longer than the flowers. With.) *arven'sis.*
Wall Speedwell. Old walls, &c. A. 5. *Curt.*

15. V. Fl. solitary, leaves cordate, flat, 5-lobed. *hederæfo'lia.*
Ivy-leaved Sp. Hedge-banks, &c. A. 4. 5. *Curt.*

16. V. Fl. solitary, leaves digitate-parted, peduncles longer than the calyx. *triphyl'los.*
Trifid Speedwell. Sandy fields. A. 4. 5. *Curt.*

17. V. Fl. solitary, leaves digitate-parted, peduncles shorter than the calyx. (Spike terminating. With.) *ver'na.*
Vernal Speedw. Old walls, &c. A. 4. 5. *E. Bot.* 25.

30. Pinguic'ula. *Cor.* ringent, spurred. *Cal.* 2-lipped, 5-cleft. *Caps.* 1-celled.

1. P. Nectary thickest at the end. (Nect. obtuse, shorter than the petal, scape hairy, capsule globular. E. Bot.) P. *villosa.* Lightf. *tab.* 6. *lusita'nica.*
—— Marshes. P. 6. 7. *E. Bot.* 145.

2. P. Nectary cylindrical, as long as the petal. (Capsule ovate. Smith.) *vulga'ris.*
Common Butterwort. Bogs. P. 5. 6. *E. Bot.* 70.

Var. 2. Leaves lanceolate, obtuse, length more than four times greater than their breadth.

Obs. I found several of these plants last autumn about three miles from Buxton, on the right-hand side of the road leading to Disley, and gave two of them to a friend; they both lived and flowered, but unfortunately all the scapes were destroyed by a cow except one, and the flower of that was so much injured, when I saw it, that I cannot give so perfect a description of it as I could wish. The *scape* was about five inches high, villous above, smooth below; *corol* less, more oblong, the segments bluer than in Ping. *vulgaris*; *nect.* cylindrical. The *leaves* more than three inches in length, and about six eighths of an inch in breadth.

31. UTRICULA'RIA. *Cor.* ringent, spurred. *Cal.* 2-leaved, equal. *Caps.* 1-celled.

vulga'ris. 1. U. Nectary conical, scape few-flowered.
Greater Bladdersnout. Wet ditches. P. 8. *E.B.* 253.

mi'nor. 2. U. Nectary keeled.
Less Hooded-Milfoil, &c. Pits. P. 6. 7. *E.Bot.* 254.

32. VERBE'NA. *Cor.* funnel-shaped, nearly equal, curved. *Cal.* one tooth truncated. *Seeds* 2, or 4, naked. (Stam. 2 or 4.)

officina'lis 1. V. Tetrandrous, spikes filiform, panicled, leaves multifido-laciniated, stem solitary.
Vervain. Road sides. A. 8. 9. *Curtis.*

23. LY'COPUS. *Cor.* 4-cleft, one segment emarginate. *Stam.* distant. *Seeds* 4, retuse.

europæ'us. 1. L. Leaves sinuato-serrated.
Water Horehound. Banks of streams. P. 7. 9. *Curt.*

Var. 2. *Jagged.* Leaves deeply divided. *Barr.* 154.

39. SAL'VIA. *Cor.* unequal. *Filam.* fixed transversely on a pedicel.

praten'sis. 1. S. Leaves cordato-oblong, crenate, upper leaves embracing the stem, verticils almost naked, cor. helmet glutinous.
Meadow Clary. Meadows. P. 6. 7. *E.Bot.* 153.

Verbena'- ca. 2. S. Leaves sinuated, serrated, smoothish, corols narrower than the calyxes.
Wild Clary. Meadows, &c. P. 6. *E. Bot.* 154.

24. CIRCÆ'A. *Cor.* 2-petalled. *Cal.* 2-leaved, superior. *Caps.* 2-celled.

racemo'sa, 1. CIRCÆA.

Var. 1. *lutetiana.* Stem erect, racemes several, leaves ovate (ovato-lanceolate, somewhat serra-

ted, tomentous, opake). C. *lutetiana*. Lin. Huds. With.

Inchanter's Nightshade. Shady pl. P. 6. 7. *Curt.*

Var. 2. *alpina*. Stem prostrate, raceme single, leaves cordate (toothed, shining. Plant small). C. *alpina*. Lin. Huds. With.

Mount. Inch. N. Mount. P. 7. *H. ox.* v. 34. 3. 1.

Obs. My friend Mr. Robson, to whom I am indebted for several valuable communications, has ascertained by cultivation, that C. *lutetiana* and *alpina* are not specifically distinct: hence it will no longer appear surprizing, that it was found so extremely difficult to point out any certain marks of difference in them.

DIGYNIA.

42. ANTHOXAN'THUM. *Cal.* Glume 2-valved, 1-flowered. *Cor.* Glume 2-valved, acuminate. *Seed* 1.

1. A. Spike oblong, ovate, florets longer than the awn, somewhat peduncled. *odora'tum.*

Spring Grass. Meadows. P. 5. 6. *Curt. Mart.* 23.

CLASS III.

TRIANDRIA.

MONOGYNIA.

1. *Flowers superior.*

44. VALERIA'NA. *Cor.* 5-cleft, gibbous at the base. *Seed* 1.
55. CRO'CUS. *Corol* 6-petalöid, erecto-patulous. *Stigmas* convolute, coloured.
59. I'RIS. *Corol* 6-petalled, the alternate petals spreading. *Stig.* petalöid.
56. IX'IA. *Cor.* 1-petalled, tubular; tube straight, filiform, limbus 6-parted, equal.

2. *Flowers grass-like, calyxes glumose, with valves.*

65. SCHŒ'NUS. *Cor.* 0. *Cal.* chaffy scales, fascicled. *Seed* roundish.
66. CYPE'RUS. *Cor.* 0. *Cal.* chaffy scales, 2-rowed. *Seed* naked.
67. SCIR'PUS. *Cor.* 0. *Cal.* chaffy scales, imbricated. *Seed* naked.
68. ERIOPH'ORUM. *Cor.* 0. *Cal.* chaffy scales, imbricated. *Seed* wool-bearing.
69. NAR'DUS. *Cor.* 2-valved. *Cal.* 0. *Seed* covered.

(VI. *Juncus conglomeratus, & effusus.* XXI. *Carex. Typha. Sparganium.* XXII. *Salix triandra.*)

DIGYNIA.

(GRASSES.)

1. *Flowers scattered, one in each calyx.*

74. PHAL'ARIS. *Cal.* 2-valved, valves keeled, equal, including the *corol.*
76. PAN'ICUM. *Cal.* 3-valved, the third dorsal least. (*Cal.* 2-valved, 2-flowered, 1 floret male, and 1 hermaphrodite. WITH.)

77. PHLE'UM. *Cal.* 2-valved, truncated, mucronate, sessile.
78. ALOPECU'RUS. *Cal.* 2-valved. *Cor.* 1-valved, the end simple. (Nectary 0. WITH.)
90. STI'PA. *Cal.* 2-valved. *Cor.* awn terminating, not jointed. (Awn very long, jointed at its base. WITH.)
92. LAGU'RUS. *Cal.* 2-valved, villous. *Cor.* awns 2 terminating, and 1 dorsal.
— CAL'AMAGROS'TIS. *Cal.* 2-valved, nearly equal. *Cor.* hairy at the base. GMELIN.
79. MIL'IUM. *Cal.* 2-valved, valves ventricose, nearly equal, larger than the corol.
80. AGROS'TIS. *Cal.* 2-valved, valves acute, shorter than the *cor.* (In all the English species longer. WITH.)
86. DAC'TYLIS. *Cal.* 2-valved, one valve larger, longer, compressed, keeled. (Valves concave keeled. WITH.)

(Scirpus palustris et fluitans. Schœnus compressus.)

2. *Flowers scattered, 2 in each calyx.*

81. AI'RA. *Cal.* 2-valved. *Florets* without the rudiment of a third.
82. MEL'ICA. *Cal.* 2-valved, with the rudiment of a third. (*Nectary* 1-leaved, fleshy. WITH.)
— SESLE'RIA. *Invol.* 2-leaved. *Cal.* 2-valved, with 1—3 florets. *Cor.* toothed at the end. WITH.

(Avena elatior, flavescens, et fatua. Cynosurus. Dactylis glomerata. XXIII. *Holcus.)*

3. *Flowers scattered, many in each calyx.*

84. BRI'ZA. *Cal.* 2-valved. *Cor.* cordate, valves ventricose.
83. PO'A. *Cal.* 2-valved. *Cor.* ovate, valves rather acute.
88. FESTU'CA. *Cal.* 2-valved. *Cor.* oblong, valves mucronate.
89. BRO'MUS. *Cal.* 2-valved. *Cor.* oblong, valves (outer valve) awned beneath the point.
90. AVE'NA. *Cal.* 2-valved. *Cor.* oblong, valves with a twisted (jointed) awn upon the back.
93. ARUN'DO. *Cal.* 2-valved. *Cor.* awnless, woolly at the base.

(Dactylis glomerata. Aira cœrulea et aquatica.)

4. *Flowers spiked, on a subulate receptacle.*

95. Lol'ium. *Invol.* 1-leaved, 1-flowered. *Fl.* compound. (*Inv.* 1-leaved, containing 1 many flowered spikelet. With.)
96. El'ymus. *Invol.* 4-leaved, 2-flow. *Fl.* comp.
98. Hor'deum. *Invol.* 6-leaved, 3-flow. *Fl.* simp.
99. Trit'icum. *Cal.* many flowered.
87. Cynosu'rus. *Inv.* 1-leaved, lateral. *Fl.* comp.
1360. Rottbol'lia. *Cal.* ovato-lanceolate, flat, simple or 2-parted. *Florets* alternate on a flexuose rachis.

(*Poa minima.* XXI. *Carex.*)

TRIGYNIA.

(XXI. *Carex.* *Amaranthus.*)

100. Eriocau'lon. *Cor.* 3-petalled. *Cal.* compound. *Seed* 1, crowned with the corol.
101. Mon'tia. *Cor.* 1-petalled. *Cal.* 2-leaved. *Caps.* 3-valved, 3-seeded.
105. Polycar'pon. *Cor.* 5-petalled. *Cal.* 5-leaved. *Caps.* 3-valved.
104. Holos'teum. *Cor.* 5-petalled. *Cal.* 5-leaved. *Caps.* opening at the top.

(IV. *Tillæa.* V. *Alsine media.*)

ENNEAGYNIA.

(XXII. *Empetrum.*)

MONOGYNIA.

44. Valeria'na. *Cal.* 0. *Cor.* 1-petalled, gibbous at the base, superior. *Seed* 1. (or a 3-celled caps. With.)

ra'bra. 1. V. Fl. monandrous, tailed; leaves lanceolate, very entire.
Red Valerian. Old walls, &c. P. 5—8. *Ger.* 678. 1.

dioi'ca. 2. V. Fl. triandrous, dioicous; leaves pinnate, very entire. (Root-leaves ovate. Huds.)
Small Valer. Bogs, &c. P. 5—7. *Curt.* 278.

officina'lis. 3. V. Fl. triandrous; leaves all pinnate.
Great Wild Valer. Ditches, &c. P. 6. *Curt.*

4. V. Fl. triandrous; stem dichotomous; leaves linear, entire. *locus'ta.*
Lambs Lettuce. Cornfields. A. 4—8. *Ger.* 810. 1.

Var. 2. Leaves acute. *F. Dan.* 738.
—— 3. Leaves broad. *J. B.* III. 323. 2.
—— 4. Upper leaves serrated. *Curt.* 319.
—— 5. Lower leaves laciniated. *Lob. a.* 319. 1.
—— 6. Taller. Leaves entire. Seeds round, swoln. *H. ox.* 7. 16. 37. See WITH.

55. CRO'CUS. *Cor.* 6-parted, equal. *Stigmas* convolute.

1. C. Stigma 3-parted, leaves narrower, margin revolute. MART. C. *autumnalis*. E. BOT. C. *sativus* α. LIN. HUDS. WITH. *officina'lis.?*
Common Saffron. Mead. &c. P. 8. 9. *Mart.* 58.

2. C. Stigma trifid; leaves broader, margin patulous. MART. E. BOT. C. *sativus* β. LIN. HUDS. WITH. *ver'nus. ?*
Spring crocus. Meadows, &c. P. 3. *Mart.* 59.

Obs. I have found this plant in flower near Blackburn late in the autumn.

59. I'RIS. *Cor.* 6-petalled (6-parted), unequal, the alternate petals bent back as if jointed. *Stigmas* petaliform, cowled, 2-lipped.

1. *Petals beardless, leaves ensiform.*

1. I. Alternate petals less than the stigma. *pseudac'orus.*
Water Flag. Moist places. P. 7. *Curt.* 197.

2. I. Leaves channelled, subulate, shorter than the 2-flowered scape. *Xiph'ium.*
Bulbous-rooted Flag. Near Fladbury, Worc. P. 7. *Ger.* 101. 1.

3. I. Scape with one angle. *fœ'tida.*
Stinking Flag. Hedge banks. P. 6. 7. *Ger.* 60.

56. IX'IA. *Cor.* 1-petalled, tubular, tube straight, filiform, limbus 6-parted, campanulate, equal. *Stigmas* 3, simple.

1. *Scape shorter than the leaves.*

1. I. Scape 1-flowered, very short, stem-leaves angular, stigmas six-fold. Syst. ed. 13. P. 76. (Scape branched, flow. solitary, leaves fur- *Bulboco'dium.*

rowed, reflected. THUNB. Diss. de Ixia. See Syst. ed. 14. P. 83.)
—— Guernsey. —— *Miller* pl. 240. See Symons.

65. SCHŒ'NUS. *Glumes* chaff-like, 1-valved, crowded. *Cor.* 0. *Seed* 1, roundish, within the glumes.

1. *Culm cylindrical.*

min'imus. 1. S. Culm naked, head halved, invol. 3—5-leaved, one leaf subulate, much longer than the flowers. FORSTER. See Symons, p. 197.
—— Guernsey —— 5. 7.

maris'cus. 2. S. Leaves prickly on the back and margin.
Long-rooted bast. Rushgr. Bogs. P. 7. 8. *Ger.* 29. 3.

ni'gricans. 3. S. Culm naked, spike an ovate head; invol. 2-leaved, one valve subulate, long. See Cyperus *nigricans.*

ferrugin'eus. 4. S. Culm naked, spike double, larger valve of the involucre as long as the spike.
Ferrugineous Bogrush. Bogs. P. 7. *H. ox.* 8. 12. 40.

2. *Culm 3-cornered.*

compres'sus. 5. S. Culm somewhat 3-cornered, spike 2-rowed; invol. 1-leaved.
Compressed Rushgr. Turf bogs. P. 7. *Leers.* 1. 1.

ru'fus. 6. S. Culm tending to 3-cornered, spike nearly ovate, spikelets 1-flowered, invol. 1-leaved. HUDS.
Tawny Rushgrass. Marshes. P. 7. LIGHTF. 24. 2.

al'bus. 7. S. Culm leafy, tending to 3-cornered, flowers fasciculate, leaves setaceous.
White-flow. Rushgr. Bogs. P. 7—9. *F. Dan.* 320.

fus'cus. 8. S. Culm cylindrical, (3-cornered, but the angles obtuse) leafy, spikelets somewhat fasciculate, leaves filiform, channelled. (Spikes in pairs, plump. W.) S. *albus.* β. HUDS.
Brown Rushgrass. Turfy bogs. P. 6. *H. ox.* 8. 11. 40.

Obs. It is placed in the first division by Lin.

66. CYPE'RUS. *Glumes* chaff-like, 2-rowed, imbricated. *Cor.* 0. *Seed* 1, naked.

1. *Culm cylindrical.*

ni'gricans. 1. C. Culm naked, spike an ovate head, invol. 2-leaved, one valve subulate, long. Schœnus *nigricans.* Lin.
Round blackhead. Rushgr. Bogs. P. 6. *H. ox.* 8. 10. 28.

2. C. Culm naked, setaceous, spike ovate, 2-valved, seeds naked. Scirpus *acicularis*. LIN. *acicu'laris.*
Slender Clubrush. Bogs. P. 8. *F. Dan.* 287.

2. *Culm 3-cornered, leafy.*

3. C. Umbel leafy, more than decompound, peduncles naked, spikes alternate. *lon'gus. ?*
Sweet Cyperus. —— P. 8. *Ger.* 30. 1. *the last* 30.

67. SCIR'PUS. *Glumes* chaff-like, on all sides imbricated. *Cor.* 0. *Seed* 1, beardless. (*Seed* one 3-cornered, often woolly; hairs shorter than the spike. WITH.)

1. *Spike single.*

1. S. Culm cylindrical, naked; spike nearly ovate, terminating. *palus'tris.*
Clubrush. P. 8. Moist places. *E. Bot.* 131.

2. S. Culm striated, naked; spike 2-valved, terminating, as long as the invol. Roots separated by a scale. *cæspito'sus.*
Dwarf Clubrush. Bogs. P. 6. *F. Dan.* 167.

3. S. Culm scored, naked; spike terminating, few-flowered, longer than the valves of the involucre. LIGHTF. HALLER. *pauciflo'rus.*

Obs. The stems more rigid, not so close together, and bearing fewer florets than the *cæspitosus*. WOODW.

Chocolate-headed Clubrush. Highl. Mount. P. 8. *Ger.* 21. 3.

S. See Cyperus *acicularis*. *acicu'laris.*

4. S. Culms cylindrical, naked, alternate, stem leafy, flaccid. *flu'itans.*
Floating Club-rush. Ditches. P. 8. *E. Bot.* 216.

2. *Spikes many, culm cylindrical.*

5. S. Culm cylindrical, naked; spikes many, ovate, terminating, peduncled. (Cal. ciliate, 3-cleft, middle segm. subulate. STOKES.) *lacus'tris.*

Var. 1. Invol. somewhat membranous, shorter than the panicle; spikes rather long. α. HUDS. *Ger.* 35. 3.
—— 2. Invol. nearly the length of the pan.; spikes ovate. β. HUDS. *Gerard.* 31. 4.
—— 3. One side of the culm flattish. γ. HUDS. *H. ox.* 8. 10. 2.
Bull-rush. Pools, &c. P. 7. 8.

Holoschœ'nus. 6. S. Culm cylindrical, naked; spikes almost globular, crowded, peduncled; invol. 2-leaved, unequal, mucronate.
Round-head. Clubgr. Sea coast. P. 7. *Park.* 1194. 4.

roma'nus. 7. S. Culm cylindrical, naked; head lateral, compact, bracte reflected.
Single-h. Clubg. Moist mead. P. 7. *Jacq. Austr.* 448.

seta'ceus. 8. S. Culm naked, setaceous, (lateral spikes sessile, or peduncled) terminating spike sessile.
Least Rush. Wet ground. A. 7. 8. *F. Dan.* 311.

3. *Culm 3-cornered; panicle naked.*

tri'queter. 9. S. Culm 3-cornered, naked; spikes lateral, ovate, peduncled, or nearly sessile, point of the culm erect. S. *mucronatus* β. Huds.
Pointed Clubrush. Sea shore. P. 7. 8. *Pluk.* 40. 2.

4. *Culm 3-cornered; panicle leafy.*

marit'imus. 10. S. Culm 3-cornered, panicle close, leafy, scales of the spikelets 3-cleft, middle segment subulate.
Salt-marsh Clubgr. Sea coast. P. 8. *Curt.* 284.

sylvat'icus. 11. S. Culm 3-cornered, leafy; umbel leafy, peduncles naked, more than decompound; spikes crowded. (Scales entire Stokes.)
Wood Clubgrass. Wet places. P. 8. *Ger.* 30. 5.

68. Erioph'orum. *Glumes* chaff-like, on all sides imbricated. *Cor.* 0. *Seed* 1. surrounded with very long wool.

vagina'tum. 1. E. Culms sheathed, cylindrical; spike scariose.
Single-headed Cotton-gr. Bogs. P. 2—4. *Curt.* 219.

polysta'chion. 2. E. Culms cylindrical, leaves flat; spikes peduncled.
—— Bogs. P. 5. 6. *Leers* 1. 5.

angustifo'lium. 3. E. Culms cylindrical, leaves 3-cornered, channelled, spikes peduncled. E. *polystachion.* Huds.
Cotton-grass. Bogs. P. 6. *Curt.* 222.
Obs. Fem. flowers have been frequently observed on a separate plant; the stigmas in this case larger. Mr. Caley.

alpi'num. 4. E. Culms naked, 3-cornered, spike (solitary) shorter than the pappus.
Alpine Cotton-gr. Bog near Forfar. P. 6. *E. Bot.* 311.

69. Nar'dus. *Cal.* 0. *Cor.* 2-valved. (Nect. 0.)

stric'ta. 1. N. Spike setaceous, straight, 1-rowed.
Small Matweed. Heaths, &c. P. 6—8. *E. Bot.* 290.

DIGYNIA.

74. PHAL'ARIS. *Cal.* 2-valved, valves keeled, equal, including the corol.

1. P. Panicle nearly ovate, spike-like, glumes keeled, hairy. (Nect. 2., cal. double. WITH.) *canarien'sis.*
Manured Canary-gr. Road sides. A. 6—9. *Ger.* 86.
2. P. Panicle oblong, ventricose, large. See Calamagrostis *variegata.* *arundina'cea.*
3. P. Pan. cylindrical, spike-like, smooth, viviparous. (Glumes lineari-lanceolate, smoothish, the inner margin abrupt. E. BOT.) *phleoi'des.*
Cat's-tail Canary. Swaffham Heath, &c. P. 6. 7. *E. Bot.* 222.
4. P. Spike ovate (ovato-lanceolate), ciliate, culm branched. HUDS. WITH. Phleum *arenarium* Lin. *arena'ria.*
Sea Timothy-gr. Sandy sh. A. 7. 8. *E. Bot.* 222.

76. PAN'ICUM. *Cal.* 3-valved, the third valve least. (*Cal.* 2-valved, 2-flowered; 1 flor. herm. the other male, or neutral. WITH.)

1. P. Spike verticillate (cylindrical, rough when stroked downwards. WITH.); involucrets 1-flowered, 2-bristled. *verticilla'tum.*
Kneed-grass. Cornfields. A. 6. 7. *Curt.*
2. P. Spike cylindrical, involucrets 2-flowered, fasciculato-hairy, seeds nerved. (Spike cylindrical, soft to the touch, involucrets 3-bristled, 1-flowered. WITH.) *vir'ide.*
Green Panick. Sandy fields. A. 7. *Curt.*
3. P. Spikes alternate and in pairs, spikelets subdivided, glumes awned, hispid; rachis 5-cornered. *Crusgal'li.*
Var. 1. Awns (o. CURT.) not twice as long as the calyx.
Loose Panick. Wet cornfields. A. 8. *Curt.*
Var. 2. Awns ten times as long as the calyx. *Ger.* 16. 1.
4. P. Spikes digitate, spreading, knotty on the inside of the base, flow. in pairs, awnless, sheath of the leaves dotted. *sanguina'le.*
Cock's-foot Pan. Cornfields. A. 7. 8. *Curtis.*
5. P. Spikes digitate, spreading, villous on the inside of the base, flow. solitary, runners creeping. *dac'ty on.*
Creeping Panick. Sea shore. P. 8. *With.* P. 21.

77. PHLE'UM. *Cal.* 2-valved, sessile, linear, truncated, ending in two points. *Cor.* inclosed.

praten'se. 1. P. Spike cylindrical, very long, ciliate, culm (mostly) erect. (Cal. ciliate and awned. WITH.)
Var. 1. *larger.* Culm erect.
Com. Timothy-gr. Pastures. P. 7. 8. *Schr.* 14. 12.
Var. 2. *smaller.* Culm ascending. *Schr.* 14. 3. 4.

arena'rium. 2. P. Spike ovate, ciliate, culm branched. See Phalaris *arenaria.*

nodo'sum. 3. P. Spikes cylindrical, culm ascending, leaves oblique, root bulbous.
Mountain Timothy-gr. On walls. 6. *Barr.* 22. 1.

panicula'tum. 4. P. Pan. cylindrical, spike-like, glumes naked, culm somewhat branched. HUDS. WITH.
Branched Timothy-gr. Meadows. P. 8. *Barr.* 28. 2.

alpi'num. 5. P. Spike ovato-cylindrical (purplish).
Mount. Timothy-gr. Mountains. P. — *F. Dan.* 213.

78. ALOPECU'RUS. *Cal.* 2-valved. *Cor.* 1-valved. (*Nect.* o.)

praten'sis. 1. A. Spiked, culm erect, cal. hairy, cor. awned. WITH. LIN.
Meadow Foxtail. Very common. P. 5. 6. *Curt.* 296.

agres'tis. 2. A. Culm spiked erect, glumes smooth (calyx glumes united at the base. WITH.)
Field Foxtail. Road sides. P. 5. 6. *Curt. Mart.* 6.

genicula'tus. 3. A. Culm spiked geniculate.

Obs. Lin. has described A. *pratensis* and *geniculatus* as awnless, but we always find awns in both species.

Var. 1. Awns longer than the calyx, roots fibrous.
—— In meadows. P. 6. *Curt.* 339.
—— 2. Awns scarcely twice as long as the calyx, root bulbous, pedicels branched. On bogs. 5.
—— 3. Awns more than twice as long as the calyx, root bulbous, pedicels not branched.
—— Meadows. 6.
—— 4. Awns very soft, not longer than the calyx, pedicels branched, root fibrous.
—— In marshy places. P. 8—10. *Ger.* 14. 2.

bulbo'sus. 4. A. Culm erect, spike cylindrical, root bulbous.
Bulbous Foxtail. Salt marshes. P. 6. 7. *Bar.* 699. 1.

monspelien'sis. 5. A. Pan. somewhat spiked, cal. rough, cor. awned (2-valved).
Bearded Foxtail. Wet past. A. 6, 7. *Park* 1166. 3.

6. A. Pan. somewhat spiked, cal. villous, cor. awned (2-valved). *panice'us.*
—— In dry soil. A. 7. *Schr.* 20. 3.

90. STI'PA. *Cal.* 2-valved, 1-flowered. *Cor.* outer valve with a terminating awn jointed at the base.

1. S. Awns woolly. *penna'ta.*
Downy Feather-gr. On mount. P. 7. 8. *Barr.* 46.

92. LAGU'RUS. *Cal.* 2-valved, awn villous. *Cor.* outer petal with two terminating awns, and one dorsal, twisted awn.

1. L. Spike ovate, awned. *ova'tus.*
—— In Guernsey. DICKS. A. *Schreb.* 19. 3.

— CALAMAGROS'TIS. *Cal.* glume 2-valved, 1-flowered. *Cor.* hairy at the base. GMEL. WITH.

1. *Awned.*

1. C. Pan. lanceolate, contracted, spike-like, cor. linear, hairy at the base, awn dorsal straight, short, culm branched. WITH. See Arundo *Calamagrostis.* *lanceola'ta.*
2. C. Pan. stiff and straight, cor. small, hairy at the base, leaves flat. WITH. See Arundo *Epigejos.* *Epige'jos.*

2. *Awnless.*

3. C. Pan. spike-like, cor. hairy at the base, leaves with the edges involute, pointed, thorn-like at the end. WITH. See Arundo *arenaria.* *arena'ria.*
4. C. Pan. large, loose, lineari-lanceolate; leaves broad, flat, culm simple. WITH. Phalaris *arundinacea.* Lin. *variega'ta.*
—— Banks of rivers. P. 7. *H. ox.* viii. 6. 41.
Var. 2. Leaves glaucous green. RAY SYN. 400. 1.
—— 3. Leaves striped. C. *colorata.* Aiton.

79. MIL'IUM. *Cal.* 2-valved, 1-flowered, valves nearly equal. *Cor.* very short. *Stigma* pencil-like.

1. M. Pan. somewhat spiked, flow. awned. Alopec. *ventricosus.* Huds. *lendig'erum.*
Panick Millet. Pastures, &c. A. 8. 9. *Schr.* 23. 3.
2. M. Flow. panicled, scattered, awnless. *effu'sum.*
Soft Millet. Moist woods. A. 5. 6. *Curt.* 248.

80. AGROS'TIS. *Cal.* 2-valved, 1-flowered, rather less than the corol. *Stigm.* longitudinally hispid. (*Cal.* 1-flowered, 2-valved, lanceolate, acute, generally rough on the keel, longer than the corol. *Cor.* 2-valved. *Stigm.* hairy. WITH.)

1. *Awned.*

Spi'ca-ven'ti. 1. A. Outer petal with a stiff straight very long awn, pan. patulous. (Cal. glumes nearly equal, cor. valves equal, awn twice as long as the cor. fixed just beneath its point. WITH.)
Silky Bent. Sandy fields. A. 6—8. *F. Dan.* 853.

palus'tris. 2. A. Cal. glumes equal; cor. outer valve twice the length and breadth of the inner; awn shorter than the corol, fixed just beneath its point. WITH.
—— In moist ditches. P. 6. 7.

cani'na. 3. A. Cal. valves nearly equal, cor. valves very unequal, awn jointed, twice the length of the cor., fixed just below its middle. WITH. not LIN. HUDS.
—— ——: A. 6. *Leers.* 4. 2. *F. Dan.* 161.

vinea'lis. 4. A. Cal. coloured, awn from the back of the cor. almost as long as the calyx, culms ascending. SCHR. WITH.
—— On heaths, &c. 7—9. *Scheuch.* 3. 9. D. E.

pal'lida. 5. A. Cal. valves unequal; cor. inner valve capillary, very short, awn somewhat longer than the cor. fixed below its middle. WITH.
—— New Forest, Hants. — 5. 6. *With.* pl. 22.

alpi'na. 6. A. Leaves setaceous, panicle compact; cal. rough, coloured; cor. (hairy at the base, STOKES.) outer valve with a jointed dorsal awn. GMEL. WITH. A. *canina.* β. Huds.
—— New Forest, Hants. P. 5. 6. *Scheuch. pr.* 4. 1.

littora'lis. 7. A. Panicle somewhat spike-like, cal. glumes awned. WITH.
—— Norfolk coast. P. 6. *With.* pl. 23.

seta'cea. 8. A. Leaves setaceous (glaucous), culm erect. CURT. A. *canina.* γ. Huds.
Sheep's Fescue-leav. Ag. Fiddletown heath. P. 7. *Curt.*

2. *Awnless.*

al'ba. 9. A. Panicle large, spreading; cal. both valves serrulated; culm procumbent. WITH.
Var. 1. Pan. branches crowded with flor. at the base.
—— Bogs, &c. P. 6. 7. *Leers.* 4. 5.

Var. 2. Only the shorter pan. branches crowded with flor. at the base, both cal. valves serrulated.

—— Light sandy loam. P. 7. 9.

—— 3. Only the shorter pan. branches crowded with flor. at the base; longer branches subdivided; cal. inner valve only serrulated upwards.

—— Amongst wheat in a loamy soil. P. 7. 9.

—— 4. Pan. branches bare at the base, subdivided upwards. P. 7—9. See With.

10. A. Pan. scattered, branches bare at the base, flor. few, cal. inner valve smooth, roots creeping. With. *ni'gra.*

Bl. Squitch-gr. In marl. soil. P. 8—10. *Leers.* 4. 6.

11. A. Panicle compact; branches stiff, short, densely crowded with florets at the base; cal. inner valve smooth, outer only serrulated upwards. With. Lin. *stolonif'era.*

Bl. Squitch-gr. Moist mead. P. 7—9. *Ger.* 26. 1.

12. A. Pan. large, patulous; longer branches naked, shorter crowded with flor. at the base, cal. inner valve smooth, outer serrulated upwards. With. *marit'ima.*

In sand on the south. coast. P. 6. 7. *Ger.* 23. 1.

13. A. Pan. spreading, branches bare at the base, flor. numerous, cal. inner valve smooth, outer serrulated upwards; cor. inner valve but half the size of the other, deciduous. With. A. *polymorpha.* α. Huds. *vulga'ris.*

On poor land. P. 5—7. *Gr. pasc. F. Dan.* 163.

Var. 2. dwarf. A. *pumila* Lightf. Lin.? A. *polymorpha.* γ. Huds.

—— Barren soil. P. 7. *Lightf.* II. *front.*

—— 3. *sylvatica.* Cor. after flowering twice as large as the calyx. A. *sylvatica.* Lin.?

A. *polymorpha.* ν. Huds. Hornsey wood P. 6—8.

14. A. Panicle filiform. *min'ima.*

—— In Wales. A. 7. *H. ox.* 8. 2. *row* 3. 10.

Obs. The florets have the habit of a Poa, but there is only one in each calyx, and the cal. are strictly seated upon a rachis. See With.

86. Dactylis. *Cal.* 2-valved, compressed, one valve larger, keeled. (*Cal.* 2-valved, many-flowered, valves broader on one side. *Cor.* 2-valved, inclosing the seed. *Nect.* 2. With.)

1. D. Spikes terminating, sometimes in pairs, *stric'ta.*

flor. (leaning one way, downy) not expanding, culm and leaves stiff and straight. AITON. WITH.

Smooth Cocksfoot. Marshes. P. 8. 9. *E. Bot.* 380.

glomera'ta. 2. D. Pan. 1-rowed, crowded (cal. 4-flowered).
Rough Cocksfoot. Common. P. 6—8. *E. Bot.* 335.

81. AI'RA. *Cal.* 2-valved, 2-flowered, without any rudiment of a flor. interposed.

1. *Awnless.*

aquat'ica. 1. A. Pan. spreading, flor. awnless, smooth, longer than the calyx leaves flat.
Water Hair-grass. Margins of Pools. P. 6. 7. *Curt.*

2. *Awned.*

cæspito'sa. 2. A. Leaves flat, pan. spreading, pet. villous and awned at the base, awn straight, short.
Turfy Hair-gr. Moist woods, P. 6—8. *Ger.* 5. 1. 2.
Var. 2. Pan. viviparous. Lightf. Highlands.

flexuo'sa. 3. A. Leaves setaceous, culms almost naked, pan. diverging, pedunc. flexuose.
Heath Hair-grass. Heaths, &c. P. 6—8. *Schr.* 20.

monta'na ? 4. A. Leaves setaceous, panicle contracted, flor. hairy at the base, awned, awn twisted, longer.
—— High heaths, &c. P. 7. 8. *Scheuch prodr.* 4. 4.

Obs. The A. *montana* found in this island is supposed by With. to be only a young plant of A. *flexuosa*.

Var. 2. *setacea*. Awns twice as long as the flor. HUDS.

canes'cens. 5. A. Leaves setaceous, the highest one spathaceous, (sheaths rough) including the lower part of the pan. (Pan. after flowering passing further out of the sheath.)
Grey Hair-gr. Sandy shores. P. 7. 8. *With.* pl. 24.

præ'cox. 5. A. Leaves setaceous, sheaths (smooth) angular, pan. spiked, flor. awned at the base (awn taller than the calyx).
Early Hair-grass. Dry commons. P. 5. *Curt.* 146.

caryophyllæ'a. 6. A. Leaves setaceous, pan. diverging (when ripe); flow. awned, distant.
Silver Hair-grass. Sandy pastures. A. 7. *Curt.*

82. MEL'ICA. *Cal.* 2-valved, 2-flowered, with the rudiment of a third interposed. (*Nect.* 1-leaved. *Stam.* dilated at the base. WITH.)

1. M. Petals beardless, pan. nodding, simple. M. *nu'tans. montana.* Huds. *nu'tans.*
Mount. Melic. Mount. woods. P. 6. 7. *Mart.* 65.

2. M. Pan. compact, flow. cylindrical. (Culm knotless. With.) *cæru'lea.*
Purple Melic. Boggy past. P. 5. 7. *Curt.* 301.

3. M. Pan. thinly set, cal. with two flor., one herm., the other neutral. M. *nutans.* Huds. *unifio'ra.*
Wood Melic. Hedges, &c. P. 5—7. *Curt.* 301.

— Sesle'ria. *Invol.* 2-leaved. *Cal.* 2-valved, 1—3-flowered. *Cor.* toothed at the end. With.

1. S. Culm simple, spike ovato-oblong. Cynosurus *cæruleus.* Lin. *cæru'lea.*
Blue Moor-gr. M. past. P. 4—6. *Park.* 1152. 6.

83. Po'a. *Cal.* 2-valved, many-flowered. *Spikel.* ovate, valves scariose at the margin, rather acute.

1. *Panicle spreading.*

1. P. Spikel. linear, six-flowered (5—10-flowered, culm 6 feet high). *aquat'ica.*
Reed Mead.-gr. Banks of rivers. P. 7. 8. *Curt.* 330.

2. P. Pan. with subdivided branches, spikel. 5-flowered, flor. distant, obtuse (cal. valves very unequal). A. *aquatica.* β. Huds. *dis'tans.*
Loose-flowered M. Sandy places. P. 6. 7. *With.* 25.

3. P. Spikel. 5-flowered, smooth, culm cylindrical, erect. (Sheath scale short, obtuse. Curt.) *praten'sis.*
Smooth-stalked M. Dry banks, &c. P. 5. 6. *Curt.*
Var. 2. *setacea.* Leaves slender, culm smooth.
—— Woods, &c. P. 6. *H. ox.* viii. 5. 19.

4. P. Pan. very much branched, spikel. 6-flowered, cordate. (Flor. 2—5 in each spikel.) *alpi'na.*
—— On Snowdon. P. 6. 7. *Scheuh. pr.* 3. 4.
Var. 2. *viviparous.* Pan. viviparous. *F. D.* 807.

5. P. Spikel. 4-flowered, pubescent, culm erect, cylindrical. (Root-leaves doubled together, very slender, sheaths smooth, sheath scale short, truncated. Gmelin.) *angustifo'lia.?*
—— *H. ox.* 5. 19. *Leers.* 6. 3.

Obs. Mr. Afzelius considers all the supposed British specimens of this plant as var. only of P. *pratensis.* See With.

1. P. Spikelets ovate, flor. smoothish, acute; *bulbo'sa.*

culm erect, bulbous at the base. Huds. With. not Lin.
Bulbous Meadow-gr. Meadows. P. 5. 6. *Vaill.* 17. 8.
Var. 2. *viviparous.* Pan. viviparous. *Ger.* 3. 1.

an'nua. 7. P. Pan. spreading at right angles, spikelets obtuse, culm oblique compressed. (Branches in pairs, spikel. mostly 4-flowered, leaves flat, sheaths smooth. With.)
Suffolk-grass, Borders of fields. A. 4. 9. *Curt.* 1. 2.

trivia'lis. 8. P. Spikelets 3-flowered, pubescent at the base, culm erect, cylindrical (rough; sheath scale acuminate. Curt.).
Bird-grass. Sides of ditches, &c. P. 6. 7. *Curt.*
Var. 2. *reptans.* Stems procumbent, taking root at the joints, spiklets 2 or 3-flowered.
Orcheston-grass. In Maddington. Mr. Swayne.

2. *Panicle slender, compact.*

crista'ta. 9. P. Pan. spiked, cal. somewhat hairy, about 4-flowered (flor. 2 or 3, rarely 4) longer than the peduncle, petals awned. Aira *cristata.* Lin. Sp.
Crested Mead.-gr. High bar. past. 7. *H. ox.* viii. 4. 7.

nemora'lis. 10. P. Pan. slender (open when flowering), spikelets mostly 2-flowered, mucronate, rough; culm incurved (feeble). P. *angustifolia.* β. Huds.
Wood Meadow-grass. Woods. A. 6. *F. Dan.* 749.

min'ima. 11. P. Cal. 1-flowered. Agrostis *minima.* Lin.
Obs. It is truly a Poa. Stokes. See Page 19.

3. *Panicle pointing one way.*

rig'ida. 12. P. Pan. lanceolate, somewhat branched, 1-rowed, branchlets alternate, 1-rowed (peduncle bordered on one side).
Hard Meadow-grass. Sandy pl. A. 6—8. *Curt.* 142.

procum'bens. 13. P. Culms inflexo-procumbent, pan. 1-rowed, rigid; spikel. nearly linear, about 5-flowered; flor. obtuse, hairy at the base. Curt. P. *rupestris. With.*
Procumbent Meadow-gr. St. Vinc. Rock. P. 8. *Curt.*

marit'ima. 14. P. Panicle compact, 1-rowed, branched, branches in pairs, spikelets oblong, florets obtuse, leaves acute, involute, culm oblique cylindrical. Huds.
Sea Meadow-grass. Sea coast. P. 6—8. *F. Dan.* 251.

compres'sa. 15. Pan. compact, 1-rowed (erect before and after flowering) culm oblique compressed.
Creeping Meadow-grass. Walls. P. 6. *E. Bot.* 365

16. P. Pan. conglomerate, outer pet. hairy at the margin, culm decumbent. WITH. Fest. *decumbens*. Lin. Sp. *decum'bens.*
—— Moist pastures. P. 8. *F. Dan.* 162.

17. P. Pan. spreading, spikelets mostly 3-flowered, flor. acuminate, woolly at the base, leaves subulate. WITH. P. *pratensis*. β. Huds. *glau'ca.*
—— Mountains. P. 6. 7. *F. Dan.* 964.

84. BRI'ZA. *Cal.* 2-valved, many-flowered. *Spikelets* 2-rowed, valves cordate, obtuse, the inner minute.

1. B. Spikel. triangular, cal. longer than the flor. (inner valve of the cor. cloven at the end). *mi'nor.*
Small Quake-grass. A. P. ? 2. 7. *Park.* 1165. 5.

2. B. Spikel. ovate, cal. shorter than the flor. (inner valve of the cor. ciliate, entire at the end. WITH.). *me'dia.*

3. B. Spikel. (5 to 7) cordate, flor. 17 (a raceme rather than a panicle). *max'ima?*
Great Quake-grass. A. 7. *Ger.* 87. 3.

88. FESTU'CA. *Cal.* 2-valved. *Spikelet* oblong, somewhat cylindrical, glumes acuminate. (Awn terminating, inner glume of the cor. smooth or finely downy. SMITH.)

1. *Panicle directed to one side, awns longer than the cor.*

1. F. Spikelets erect, smooth, cal. one valve entire, the other acuminate (leaves broader than those of F. *Ovina.*). *bromoi'des.*
Barren Fescue. Walls. A. 5. 6. *Scheuch.* 6. 10.

2. F. Panicle spiked (drooping), cal. (smaller valve) very minute, awnless; florets rough, awns long. *myu'rus.*
Wall Fescue. Walls. A. 5. 6. *Leers.* 3. 5.

3. F. Pan. compact awned, culm 4-cornered, almost naked, leaves setaceous. *ovi'na.*
Sheep's Fescue. P. 6. 7. *Martin* 102.
Obs. It is found awnless and also viviparous. See With.

4. F. Pan. rough, spikelets 6-flowered, awned, the last floret awnless, culm semi-cylindrical. *ru'bra.*
Purple Fescue. High heaths. P. 6. *Leers* 8. 1.

5. F. Pan. oblong, spikelets oblong, smooth, leaves setaceous. (Flor. about 6; root-fibrous.) *durius'cula.*
Hard Fes. Dry pl. P. 6. *Leers* 8. 2. *E. Bot.* 470.

dumeto'rum. 6. F. Panicle spike-like, pubescent, leaves filiform. *Pubescent Fescue.* Woods. P. 6. 7. *F. Dan.* 700.

gla'bra. 7. F. Panicle branched, erect, compact, spikelets subulate, 3-flowered, awned, smooth. LIGHTF. (Nearly allied to F. *cambrica,* if not the same. HUDS.)

—— At Ardbigland in Galloway. P. 7.

cam'brica. 8. F. Panicle oblong, erect, branched, spikelets awned, smooth, leaves flattish, naked. HUDS. *Welsh Fes.* Highest hills about Llanberris. P. 7. 8.

1. *Panicle mostly directed to one side, awnless.*

tenuifo'lia. 9. F. Leaves setaceous, rather long, erect: culm naked; spikelets rough. WITH.

—— Dry pastures. P. 7. 8. *Leers* 8. 4.

ela'tior. 10. F. Panicle erect; spikelets somewhat awned, the exterior ones cylindrical.

Var. 1. *Bog. F.* Pan. decompound, at first drooping, nearly erect when in flower, spikelets ovato-lanceolate, acute, awnless, leaves flat. CURT.

F. *elatior.* β, Lin. Sp. Boggy meadows. P. 6. 7. *Curt.*

Var. 2. *Meadow F.* Panicle oblique, pointing one way, spikelets awnless, nearly linear, leaves flat. F. *pratensis.* CURT. F. *elatior* α. Lin. Sp.

flu'itans. 11. F. Panicle branched, erect, spikelets nearly sessile, cylindrical, awnless.

Flote Fesc. Wet ditches. P. 6—9. *Curt. Leers* 8. 5.

3. *Flowers in spikes.*

lolia'cea. 12. F. Spiked, spikelets alternate, sessile, compressed, awnless. HUDS.

Spiked Fescue-grass. P. 6. 7. *Curtis.*

decum'bens. 13. F. Panicle erect, spikelets nearly ovate, awnless; calyx larger than the florets, culm decumbent. (Calyxes 3-flowered, allied to Melica) See Poa *decumbens.*

pinna'ta. 14. F. Spikel. sessile, culm simple, awns shorter than the corol. POLLICH. WITH. Br. *pinnatus.* Lin. See Bromus *pinnatus.*

Spiked Fescue. In chalky soils. P. 7. *Barr.* 25.

sylvat'ica. 15. F. Spikel. sessile, culm simple, awns as long as the corol. WITH. See Bromus *sylvaticus.*

89. BRO'MUS. *Cal.* 2-valved. *Spikel.* oblong, cylindrical, 2-rowed; awn beneath the point. (Inner glume ciliate with strong distant bristly hairs. SMITH. Lin. Tr. V. 4. 28. 1.

secali'nus. 1. B. Panicle spreading, pedunc. mostly simple,

spikel. ovate, compressed, 10-flowered, flor. distinct, nearly cylindrical. SMITH. LIN. B. *polymorphus.* γ. Huds. var. 2. With.
Smooth Rye Brome-gr. A. 6. 7. *Scheuch. agr.* 5. 10.

2. B. Panicle spreading, pedunc. nearly simple, spikel. ovato-lanceolate, compressed, 15-flowered, flor. somewhat imbricated, rather cylindrical. SMITH. GMEL. *multiflo'rus.*
Downy Rye Brome-gr. Cornfields. 7. *Scheuch.* 5. 9.

3. B. Pan. erect, dense, pedunc. branched, spikel. ovate, flor. imbricated, depressed, nerved, pubescent. SMITH. LIN. B. *polymorphus.* α. Huds. var. 1. With. *mol'lis.*
Soft Brome-grass. —— 5. 6. *Curt. fasc.* 1. 8.
Var. 2. *nanus.* On walls. *Weigel* 1. 9.

4. B. Pan. rather erect, diffuse, pedunc. simple, spikel. ovate, 6-flowered, florets imbricated, depressed, nerved, smooth. SMITH. LIN. B. *polymorphus* β. & δ. Huds. var. 3 & 4. With. *racemo'sus.*
Smooth Brome-gr. Meadows. 6. *H. ox.* viii. 7. 19.

5. B. Pan. nodding, pedunc. simple, spikel. ovate, 12-flowered, flor. imbricated, depressed, awns diverging. SMITH. LIN. HUDS. WITH. *squarro'sus?*
Corn Brome-gr. Cornfields. A. 7. *Scheuch.* 5. 11.

6. B. Pan. spreading, pedunc. branched, spikel. lanceolate, 8-flowered, flor. elliptical, imbricated, depressed, smoothish. SMITH. LIN. WITH. *arven'sis.*
Field Brome-gr. Amongst corn. A. 7. *Sche.* 5. 15.

7. B. Pan. erect, pedunc. mostly simple, flor. lanceolate, somewhat cylindrical, root-leaves very narrow with hairy ciliæ. SMITH. WITH. *erec'tus.*
Upright Peren. B. Chalky P. P. 7. *E. Bot.* 471.

8. B. Pan. nodding, branched, flor. lanceolate, nearly cylindrical, almost nerveless, leaves uniform; lower leaves hirsute. SMITH. LIN. WITH. *as'per.*
Hairy Wood Brome-gr. Hedges, &c. A. 7. *Curt.*

9. B. Pan. nodding, mostly simple, flor. lanceolate, nerved, furrowed, leaves pubescent. SMITH. LIN. HUDS. WITH. *ster'ilis.*
Barren Brome-grass. Hedges. A. 6. 7. *Curt.*

10. B. Pan. erect spreading, somewhat branched, flor. lanceolate, nerved, furrowed, diandrous. SMITH. CURT. B. *madritensis.* LIN. WITH. *dian'drus.*

Upright Annual Brome-gr. Walls. A. 6. *Barr.* 76. 1.

sylvat'icus. 11. B. Spike simple nodding 1-rowed, spikel. sessile, rather cylindrical, awns longer than the glume, leaves hairy. SMITH. POLLICH. Festuca *sylvatica.* WITH. See Page 24.

Slender Wood Brome-gr. Hedges. — 7. *Mart.* 114.

pinna'tus. 12. B. Spike simple, erect, 2-rowed, spikel. sessile, rather cylindrical, awns shorter than the glume, leaves rather naked. SMITH. LIN. HUDS. Festuca *pinnata.* With. See Page 24.

Spiked Heath Brome-gr. Heaths, &c. 7. *Barr.* 25.

91. AVE'NA. *Cal.* 2-valved, many-flowered. *Awn* from the back (of the corol), twisted.

ela'tior. 1. A. Panicled, cal. 2-flowered; herm. floret sometimes awnless, male awned.

Tall Oat-grass. Wet places. P. 6—8. *Curt.* 191.

nu'da. 2. A. Panicled; calyxes 3-flowered, shorter than the receptacle, petals awned on the back, the third floret awnless.

Naked Oat. Staffordshire. A. 7. *Mart.* 80.

fat'ua. 3. A. Panicled, calyxes 3-flowered, all the florets awned, and hairy at the base.

Bearded Oat. Cornfields. A. 7. 8. *Mart.* 81.

pubes'cens. 4. A. Somewhat spiked, calyxes mostly 3-flowered, hairy at the base; leaves flat, downy.

Rough Oat. Dry chalky ground. P. 6. *Leers* 9. 2.

flaves'cens. 5. A. Panicle loose, calyxes 3-flowered, short; all the florets awned.

Yellow Oat. On a calcareous soil. P. 7. *Curtis* 212.

praten'sis. 6. A. Somewhat spiked; calyxes 5-flowered.

Meadow Oat. Heaths, &c. P. 7. *Leers* 9. 1.

strigo'sa. 7. A. Panicle oblong, compact, pointing one way, florets in pairs, with two awns at the end, and a jointed awn on the back. SCHREB. WITH.

—— Amongst oats, North of England. A. —— n

93. ARUN'DO. *Cal.* 2-valved. Florets (awnless) heaped together, surrounded with wool at the base.

phragmi'tes. 1. A. Panicle spreading, calyxes 5-flowered.

Common Reed. Ditches. P. 7. *E. Bot.* 401.

Calamagros'tis. 2. A. Cal. 1-flowered, even; cor. downy, culm branched. (Cal. 1-flowered, longer than the corol; pan. erect, flow. scattered, leaves linear. E. BOT.) Calamagrostis *lanceolata.* With.

Small Reed. Moist woods. P. 6. *E. Bot.* 403.

3. A. Cal. 1-flowered, pan. erect, leaves smooth underneath. (Cal. longer than the corol, pan. erect, branched, spreading, flow. crowded, leaning one way, leaves lanceolate. E. Bot.) Calamag. *Epigejos*. With. *Epigeʹjos.*

Wood Reed. Moist woods. P. 6. 7. *E. Bot.* 402.

4. A. Cal. 1-flowered, leaves involute, mucronato-pungent. Calamag. *arenaria*. With. *arenaʹria.*

Sea Mat-weed. Isle of Wight. P. 6. 7. *F. D.* 259.

See Calamag, *arenaria*, &c. Page 17.

95. Lolʹium. *Cal.* 1-leaved, fixed, many-flowered. (*Spikelets* alternate. With.)

1. L. Spike awnless, spikelets compressed, many-flowered (longer than the calyx). *perenʹne.*

Rye-grass. Road sides. P. 6. *E. Bot.* 315. *Mart.* 4.

Var. 2. *tenue*. Spike awnless, cylindrical, spikelets 3-flowered. L. *tenue*. Lin.

—— 3. *broad-spiked*. Spike compound. *Scheuch. pr.* 2.

2. L. Spike awned; spikelets compressed, many-flowered (not longer than the calyx, culm rough. With.) *temulenʹtum.*

Darnel. Ploughed lands. A. 7. 8. *F. Dan.* 160.

3. L. Spikelets awnless, rather shorter than the calyx; calyx 2-valved, culm smooth. With. *arvenʹse.*

White Darnel. A. 7. *H. ox.* viii. 2. row 2. 1. n. 1.

4. L. Pan. undivided, pointing one way, spikel. awned. Huds. *bromoïʹdes.*

Sea Darnel. Sandy sea coasts. A. 5. 6. *Ray* 17. 2.

96. Elʹymus. *Cal.* lateral, 2-valved, heaped together, many-flowered.

1. E. Spike erect, close, calyxes tomentous, longer than the floret. *arenaʹrius.*

Sea Lime-gr. Sandy sea coasts. P. 7—8. *Mart.* 31.

2. E. Spike nodding, close; spikel. straight without an invol., lowest in pairs. See Triticum *caninum*. *caniʹnus.*

3. E. Spike erect, spikelets 2-flowered, as long as the involucre. Hordeum *sylvaticum*. Huds. *europæʹus.*

Wood Lime-grass. Woods. P. 6. *Park.* 1144. 7.

98. Horʹdeum. *Cal.* lateral, 2-valved, 1-flowered, 3 together.

Obs. All the British species have 2 male and 1 perfect floret in each set; all the awns barbed; the inner valve of the corol awnless; and an involucre of 2 awn-like leaflets to

each floret and a third to the herm. floret placed at the base, and on the outside of the inner valve of the corol, and about the length of the valve. See With.

muri'num. 1. H. Lateral florets male, awned, involucres of the intermediate florets ciliate.

Wall Barley. Walls. A. 5—9. *Curt.* 325. *Mart.* 43.

praten'se. 2. H. Lateral florets male, awnless, involucres setaceous, rough. Huds. With. H. *marinum.* β. Lin.

Meadow Barley. Moist past. P. 6. *E. Bot.* 409.

marit'imum. 3. H, Lateral florets male, awnless; middle floret herm. with a long awn. (Some of the involucres expanded at the base.) With, H. *marinum.* Huds.

Sea-side Barley. A. 6. 7. *H. ox.* viii. 6. 5.

sylvat'icum. 4. H. All the flor. herm. awned, calyxes growing together at the base, shorter than the awns. Huds. See Elymus *europæus.* Page 27.

99. Trit'icum. *Cal.* 2-valved, solitary, mostly 3-flowered. *Florets* rather obtuse, but pointed. (*Cal.* alternate, upon a flexuose rachis. E. Bot.)

jun'ceum. 1. T. Calyx 5-flowered, truncated; leaves involute.

Rush-wheat. Sea shore. P. 6. 7. *F. Dan.* 906.

Var. 2. With a leafy spike. Ray. *Gerard.* 23. 2.

re'pens. 2. T. Cal. 4-flowered, subulate, acuminate, leaves flat.

Couch-grass. Very common. P. 6—8. *Schr.* 26.

Var. 2, Cal. 2—5-flowered, awnless. *Schreb.* 26. iii.

—— 3. Cal. 5—8-flowered, awns not a line long. *Schreb.* 26. ii.

—— 4. Cal. 4—6-flowered, awns 2—4 lines long. Sr. *F. Dan.* 748.

—— 5. Leaves sea-green, stiff, acute. Cal. 3—8-flowered, florets pointed. See With.

cani'num. 3. T. Cal. pointed, mostly 4-flowered, awns longer than the corol, spikel. erect. Lin. Sp. ed. i. Huds. With. Elymus *caninus.* Lin.

Dogs-wheat. Hedges. P. 6. 7. *Leers.* 12. 4. ii.

lolia'ceum. 4. T. Spike simple, compressed, spikel. ovate, all leaning one way, cal. many-flowered. E. Bot. With. Poa *loliacea.* Huds.

Sea-wheat. Sandy sea shores. A. 6. 7. *E. Bot.* 221.

87. Cynosu'rus. *Cal.* 2-valved, many-flowered (few-flowered, equal). Proper *Recept.*

unilateral, leafy. (*Cor.* 2-valved, 1 valve concave, longer. *Nect.* 2-leaved. WITH.)

1. C. Bractes pinnatifid. (Spike linear.) *crista'tus.*
Crested Dogs-tail. Common. P. 6. 7. *Mart.* 106.
Var. 2. Spike 4-cornered. RAY syn. 399.

2. C. Bractes pinnate, chaff-like, (segm.) awned. (Spike lanceolate.) *echina'tus.*
Rough Dogs-tail. Sandy soil. A. 7. *Park.* 1168. 6.

3. C. Bractes entire. (Spikes nearly ovate. JACQ.) *cæru'leus.*
See Sesleria *cærulea.*

1360. ROTTBOEL'LA. *Rachis* flexuose, jointed, rather cylindrical, mostly filiform. *Cal.* ovato-lanceolate, flat, simple, or 2-parted. *Flor.* alternate. (*Cal.* 1 or 2-valved. *Cor.* 2-valved, awnless. WITH.)

1. R. Spike cylindrical, subulate, calyx glume subulate, appressed, 2-parted. SUP. p. 114. Ægilops. *incurvata.* Syst. veg. ed. 13. *incurva'ta.*
Sea Hard-grass. Sea coast. P. 7. 8. *F. Dan.* 938.

TRIGYNIA.

100. ERIOCAU'LON. *Com. Calyx* an imbricated head. *Petals* 3 equal. *Stam.* above the germen. (*Male* flor. in the disk. 1-petalled. *Fem.* flor. in the circumference 2-petalled. Petals with a black dot within the apex. See Syst. Veg. ed. 14.)

1. E. Culm 10-cornered, leaves ensiform. *decangula're.*
Nasmythia *articulata.* Huds. E. *septangulare.* With.
Wreathed Pipewort. Lakes in the Isle of Skye. P. 7. *Phil. Trans.* 59. 241.

Obs. The British plant is monoicous, and tetrandrous; its scape has 7 angles, and is sheathed at the base. From these circumstances Hudson has been induced to construct a new genus for it, and has placed it in class XXI. ord. IV. With. has placed it in cl. IV.

101. MON'TIA. *Cal.* 2-leaved. *Cor.* 1-petalled, irregular. *Caps.* 1-celled, 2-valved.

1. MONTIA. *fonta'na.*
Water Blinks. Wet heaths. A. 5. *Curt.* 188.

105. POLYCAR'PON. *Cal.* 5-leaved. *Pet.* 5, very minute, ovate. *Caps.* 1-celled, 3-valved.

tetraphyl'lum. 1. P. Stem prostrate, branched, leaves four together.

Four-leaved All-seed. Sandy pl. Aug—Sep. *Barr.* 534.

104. HORNE'UM. *Cal.* 5-leaved. *Pet.* 5. *Caps.* 1-celled, nearly cylindrical, opening at the top.

umbella'tum. 1. H. Flowers in Umbels. Corastium *umbellatum.* Huds.

Umbelliferous Mouse-ear. Walls. A. 4. 5. *E. Bot.* 27.

CLASS IV.

TETRANDRIA.

MONOGYNIA.

1. *Flowers* 1-*petalled*, 1-*seeded*, *superior*.

AGGREGATÆ.

114. DIP'SACUS. *Cal.* common, leafy. *Recept.* conical, chaffy. *Seeds* columnar.

115. SCA'BIO'SA. *Cal.* common, many-leaved. *Recept.* elevated, somewhat chaffy. *Seeds* crowned, involute (rolled in a cover. WITH.).

(III. *Eriocaulon decangulare.*)

2. *Flowers* 1-*petalled*, 1-*fruited*, *inferior*.

145. CENTUN'CULUS. *Cor.* rotate. *Cal.* 4-parted. *Caps.* 1-celled, cut round (opening horizontally).

142. PLANTA'GO. *Cor.* refracted. *Cal.* 4-parted. *Caps.* 2-celled, cut round.

141. EX'ACUM. *Cor.* somewhat campanulate. *Cal.* 4-leaved. *Caps.* 2-celled, compressed.

(V. *Gentiana campestris* and *filiformis.* XXI. *Littorella.*)

3. *Flowers* 1-*petalled*, 1-*fruited*, *superior*.

146. SANGUISOR'BA. *Cor.* flat. *Cal.* 2-leaved. *Caps.* 4-cornered, between the corol and calyx.

4. *Flowers* 1-*petalled*, 2-*berried*, *superior*.

STELLATÆ.

127. RU'BIA. *Cor.* campanulate. *Fruit* berry-like.

125. GA'LIUM. *Cor.* flat. *Fruit* almost globular.

121. ASPER'ULA. *Cor.* tubular. *Fruit* nearly globular.

TETRANDRIA.

120. SHERAR'DIA. *Cor.* tubular. *Fruit* crowned. *Seeds* 3-toothed.

(XXIII. *Valantia.*)

5. *Flowers* 4-*petalled*, *inferior.*

148. EPIME'DIA. *Pet.* 4, nectariferous, incumbent. *Cal.* 4-leaved. *Silique* 1-celled.

(V. *Euonymus europæus.* XV. *Cardamine hirsuta.* XXIII. *Parietaria officinalis.*)

6. *Flowers* 4-*petalled*, *superior.*

149. COR'NUS. *Cal.* 4-toothed, deciduous. *Drupe* a 4-celled nucleus.

7. *Flowers incomplete*, *inferior.*

165. ALCHEMIL'LA. *Cal.* 8-cleft. *Seed* 1, inclosed in the calyx.

(IV. *Aphanes.* XXI. *Urtica.* XXIII. *Parietaria.*)

8. *Flowers incomplete*, *superior.*

(V. *Thesium alpinum.* XX. *Ophrys Corallorrhiza.* XXII. *Viscum. Hippophae.*)

DIGYNIA.

166. APH'ANES. *Cor.* 0. *Cal.* 8-cleft. *Seeds* 2.

168. BUFO'NIA. *Cor.* 4-petalled. *Cal.* 4-leaved. *Caps.* 1-celled, 2-valved, 2-seeded.

170. CUSCU'TA. *Cor.* 4 (or 5) cleft, ovate. *Cal.* 4-cleft. *Caps.* 2-celled, cut round.

(IV. *Galium Mollugo et Aparine.* V. *Herniaria glabra. Gentiana campestris et filiformis. Swertia.* XXI. *Betula.* XXII. *Myrica.*

TRIGYNIA.

(XXI. *Buxus.*)

TETRAGYNIA.

172. I'LEX. *Cor.* 1-petalled. *Cal.* 4-toothed. *Berry* 4-seeded.

176. SAGI'NA. *Cor.* 4-petalled. *Cal.* 4-leaved. *Caps.* 4-[illegible], many-seeded,

valved

177. TILLÆ'A. *Cor.* 3 or 4-petalled. *Cal.* 3 or 4-leaved. *Caps.* 3 or 4, many-seeded.

174. POTAMOGE'TON. *Cor.* 0. *Cal.* 4-leaved. *Seeds* 4, sessile.

175. RUP'PIA. *Cor.* 0. *Cal.* 0. *Seeds* 4, pedicelled.

(III. *Holosteum umbellatum.* V. *Linum Radiola.*)

MONOGYNIA.

114. DIP'SACUS. *Cal. common* many-leaved; *proper* superior. *Recept.* chaffy.

1. D. Leaves sessile, serrated, chaff recurved. *fullo'num?*
Manured Teasel. B. 7. *F. Dan.* 965. *Ger.* 1167. 1.
WITH. D. *fullonum* β. Lin. Huds.

2. D. Leaves entire (opposite, connate); chaff straight. *sylves'tris.*
Wild Teasel. Uncultiv. places. B. 6—8. *Curt.*
D. *fullonum.* α Huds.

3. D. Leaves petioled, appendiculate. *pilo'sus.*
Small Teasel. Damp places. B. 8. *Curt.*

115. SCABIO'SA. *Cal. common* many-leaved; *proper* double, superior. *Recept.* chaffy, or naked. (*Seed* wrapped in the proper calyx. WITH.)

1. *Corols 4-cleft.*

1. S. Cor. 4-cleft, equal, stem simple, branches approximate, leaves lanceolato-ovate. *succi'sa.*
Devil's-bit Scabious. Pastures. P. 6—8. *Curt.*

2. S. Cor. 4-cleft, radiating, leaves pinnatifid, incised, stem hispid. *arven'sis.*
Field Scabious. Cornfields. P. 7. 8. *Curt.* 288.

2. *Corols 5-cleft.*

3. S. Cor. radiating, root-leaves ovate, crenate, stem-leaves pinnate, setaceous. *columba'ria.*
Small Scab. Dry hilly places. P. 6—9. *Ger.* 719. 2.

145. CENTUN'CULUS. *Cal.* 4-cleft. *Cor.* 4-cleft, spreading. *Stam.* short. *Caps.* 1-celled, cut round.

1. CENTUNCULUS. *min'imus.*
Bastard Pimpernel. Moist sandy gr. A. 6. *Curt.*

142. PLANTA'GO. *Cal.* 4-cleft. *Cor.* 4-cleft, limbus reflected. *Stam.* very long. *Caps.* 2-celled, opening horizontally.

ma'jor. 1. P. Leaves ovate, smooth, scape cylindrical, spike with imbricated florets.
Great Plantain. Road sides. P. 6—8. *Curtis.*
Var. 2. (β. Lin.) Leaves 3-ribbed; small, leaves rough. *Gerard.* 339.
—— 3. *toothed.* PET. Leaves with large teeth near the base. STOKES. *Pet.* 4. 2.
—— 4. *pyramidal.* Spike leafy, bractes in a pyramidal form. STOKES. *Ger.* 420. 4. higher spike.
—— 5. *rose.* Spike leafy, bractes in the form of a rose. STOKES. *Ger.* 420. 4. lower spike. Var. 4. 5. from the same root.
—— 6. *panicled.* Scape panicled. STOKES. *Ger.* 420. 6. See With. and Huds.

me'dia. 2. P. Leaves ovato-lanceolate, pubescent; spike cylindrical, scape cylindrical.
Hoary Plant. On a calcareous soil. P. 6—8. *Curt.*

lanceola'ta. 3. P. Leaves lanceolate, spike nearly ovate, naked, scape angular.
Ribwort Plantain. Road sides. P. 6. *Curt. Mart.* 67.
Var. 2. Leaves narrow, 3-ribbed. STOKES. *Ger.* 339. 4.
—— 3. *foliosa.* Summit of the scape surrounded with leaves longer than the spike. WOODW. *Gerard.* 341. 2.
—— 4. Spikes 3 inch. long, divided into 2 or 3 lateral ones at the base; scapes 2 feet high, deeply furrowed; leaves more than a foot in length, somewhat toothed, 5-nerved. LEERS. P. 50. See With.

marit'ima. 4. P. Leaves semi-cylindrical, very entire, woolly at the base, (spike and) scape cylindrical.
Sea Plantain. Sea coast. P. 6. 7. *E. Bot.* 175.
Var. 2. *narrow-leaved.* Leaves filiform.
—— 3. *flat-leaved.* Leaves flat, ribbed, sparingly toothed. *J. B.* iii. 506. 2.

coro'nopus. 5. P. Leaves linear, toothed, scape cylindrical. (Leaves pinnato-dentate. HUDS. Anthers terminated by a small lanceolate membrane. W.)
Bucks-horn Plan. Sea shore. A. 6—8. *F. Dan.* 272.
Var. 2. Leaves more deeply divided, more hairy; heads short, lax. BLACKST. p. 77.
—— 3. Leaves linear, very entire, hairy, spike roundish. DILL. in RAY syn. 316.
—— 4. Leaves serrato-dentate. STOKES. *Pet.* 4. 9.

Obs. P. *Læflingii* is by Huds. made a var. of P. *maritima*: By others P. *coronopus* var. 1. in a smaller state has been supposed to be Lœfling's plant. But the bractes of our plant are always hairy, especially on the keel, and the root-leaves pinnatifid; whereas in P. *Læf.* the bractes are stated to be smooth, and the root-leaves never pinnatifid. The following char. is given of it by Lin. "Leaves linear, somewhat toothed, scape cylindrical, spike ovate, bractes keeled, membranous." See Huds. and With.

141. Ex'acum. *Cal.* 4-cleft (or 4-leaved). *Cor.* 4 (or 5) cleft, tube globular. *Caps.* 2-furrowed, 2-celled, many-seeded, opening at the top. (Stigma capitate.)

1. E. Cor. 4-cleft, on long peduncles, leaves sessile; stem (filiform) dichotomous. E. Bot. With. Gentiana *filiformis*. Lin. *filifor'me.*
Least Gentian. Boggy places. A. 7. *E. Bot.* 255.

146. Sanguisor'ba. *Cal.* 4-leaved. *Germ.* between the *cal.* and *cor.*

1. S. Spikes ovate. *officina'lis.*
Great Burnet. Moist mead. P. 6—8. *Mart.* 142.

127. Ru'bia. *Cor.* 1-petalled, campanulate. *Berries* 2, 1-seeded. (*Berry* 2-seeded. With.)

1. R. Leaves annual, stem prickly. *tincto'rum,*
Var. 1. *Anglica.* Leaves smooth, shining, deciduous. Cor. 5-parted. Stam. 5. R. *peregrina,* Huds,
Wild Madder. Hedges, &c. P. 6. 7. *Pet.* 30. 3.

125. Ga'lium. *Cor.* 1-petalled, flat (campanulate, short. With.). *Seeds* 2, nearly round,

1. *Fruit smooth.*

1. G. Leaves 4 together, ovate, hairy, stem simple above, hairy, racemes lateral, 2-leaved, flow. polygamous. E. Bot. With. See Valantia *cruciata.* *crucia'tum.*

2. G. Leaves 4 (—6) together, unequal, obovate (lineari-lanceolate. With.): Stems diffuse, rough. *palus'tre.*
White Lady's-bedstraw. Moist pl. P. 7. *F. Dan.*

3. G. Leaves about 4 together, linear, smooth, stem feeble, rough. (Leaves reflected. With.) *monta'num.*
—— High boggy situations. — 7. *With.* Pl. 27.

procum'bens. 4. G. Leaves lanceolato-ovate, 4—6 together, mucronate, smooth, spreading, stem prostrate, smooth. With. G. *montanum*. Huds.
Trailing Goose-grass. Heaths, &c. — 7. *Pet.* 30. 6.

uligino'sum. 5. G. Leaves 6 together, lanceolate, serrato-aculeate backwards, mucronate, stiff, corols larger than the fruit.
Marsh Goose-grass. Wet heaths, &c. P. 7. *Bar.* 82.
Obs. The prickles at the margin of the leaves, and the dagger-like point distinguish this species from G. *montanum*, and its smooth stem from G. *palustre*, With.

pusil'lum. 6. G. Leaves 8 together, hispid, linear, acuminate, somewhat imbricated (below), pedunc. dichotomous.
Least Goose-gr. Limestone hills. P. 7. 8. *E. Bot.* 74.

erec'tum. 7. G. Leaves about 8, lanceolate, aculeato-serrulated, mucronate, panicles trichotomous, stem rough, flaccid. Huds.
Upright Goose-gr. Meadows. P. 6. 7. *Jacq. Aust.* 80.

mollu'go. 8. G. Leaves 8 together, ovato-linear, somewhat serrated, mucronate, widely-spreading, stem flaccid, branches spreading.
Madder Goose-grass. Heaths. P. 6—8. *F. Dan.* 455.

sca'brum. 9. G. Leaves about 8 together, rough, mucronate, flower-bearing branches mostly trichotomous. Jacq. (Furrowed; stem and leaves pubescent. Stokes.)
Downy-stalk G. Hedge-rows. P. 8. *Jacq. A.* v. 422.

ve'rum. 10. G. Leaves 8 together, linear, furrowed, flower-bearing branches short. Anthers brown after discharging the Pollen.
Yellow Lady's-bedst. Road sides. P. 7—10. *Mart.* 54.

an'glicum. 11. G. Leaves about 6 together, lanceolate, aculeato-ciliate, acuminate, reflected, stems diffuse, rough with prickles pointing downwards. Huds. (Pedunc. dichotomous.)
Small Goose-grass. Walls, &c. A. 6. 7. *E. Bot.* 384.

2. *Seeds hispid.*

boreà'le. 12. G. Leaves four together, lanceolate, 3-nerved, smooth, stem erect.
Cross-leaved Goose-gr. Mount. P. 7. 8. *E. Bot.* 105.

Apari'ne. 13. G. Leaves 8 together, lanceolate, keels rough with prickles pointing backwards, joints woolly.
Cleavers. Hedges. A. 6. 7. *Curtis. Mart.* 104.

121. ASPER'ULA. *Cor.* 1-petalled, funnel-shaped. *Seeds* 2, globular.

1. A. Leaves 8 together, lanceolate, flowers in peduncled fascicles. *odora'ta.*
Sweet Woodroof. Woods. P. 5. *Curt.* 249.

2. A. Leaves 4 together, linear, upper ones opposite, stem (rather) erect, flowers 4-cleft. *cynan'chica.*
Squinancy Woodr. Limest. hills. P. 6. 7. *E. B.* 33.

120. SHERAR'DIA. *Cor.* 1-petalled, funnel-shaped. *Seeds* 2, naked, crowned by the calyx.

1. S. All the leaves verticillate, flowers terminating. *arven'sis.*
Little Field-madder. Cornfields. A. 5—9. *Curt.*

148. EPIME'DIUM. *Nect.* 4, glass-shaped, leaning on the petals. *Cor.* 4-petalled. *Cal.* caducous. *Pericarp* a *Silique.*

1. EPIMEDIUM. *alpi'num.*
Barren-wort. On Skiddow. P. 7. *E. Bot.* 438.

149. COR'NUS. *Involucre* generally 4-leaved. *Pet.* 4. superior. *Drupe* with a 2-celled nucleus. (*Cal.* 4-toothed. *Pet.* 4. *Drupe* inferior. *Nut* 2-celled. E. BOT.)

1. C. Arboreous, cymes naked, branches erect. *sanguin'ea.*
Dog-berry Tree. Hedges. P. 6. *E. Bot.* 249.

2. C. Herbaceous, branches 2 together (generally the flow. between them). C. *Herbacea.* Huds. *suc'cica.*
Dwarf Honeysuckle. Pentland h. P. 6. 7. *E. B.* 310.

165. ALCHEMIL'LA. *Cal.* 8-cleft. *Cor.* 0. *Seed* 1 (or 2, inclosed by the calyx).

1. A. Leaves lobed. *vulga'ris.*
Com. Lady's-mantle. Past. P. 5—9. *F. Dan.* 693.
Var. 2. *minor.* Leaves pubescent, lobed. β. Huds. *Barr.* 728.

2. A. Leaves digitate, serrated. *alpi'na.*
Cinquefoil Lady's-mant. Rocks. P. 7. *E. Bot.* 244.

DIGYNIA.

166. APH'ANES. *Cal.* (4 or) 8-cleft. *Cor.* 0. *Seeds* (1 or) 2, naked.

1. A. Leaves 3-lobed. (Var. with one pistil.) *arven'sis.*
Parsley piert. Pastures. A. 5—8. *F. Dan.* 973.

Obs. It is made a species of Alchemilla by Leers, who assures us that there is only one seed. F. Hass. P. 54.

168. Buffo'nia. *Cal.* 4-leaved. *Cor.* 4-petalled. *Caps.* 1-celled, 2-seeded.

tenuifo'lia. 1. Buffonia. (Var. with 2 stamens.)
Bastard Chickweed. Sea coast. P. 5. 6. *Pluk.* 75. 3.

170. Cus'cuta. *Cal.* 4- (or 5) cleft. *Cor.* 1-petalled. *Caps.* 2-celled.

europæ'a. 1. C. Flow. sessile. (Flow. nearly sessile; cor. without scales; stigmas simple. E. Bot.
Greater Dodder. On nettles. A. 8. 9. *E. Bot.* 378.

Epith'ymum. 2. C. Flow. sessile, 5-cleft, fenced by bractes. (Flow. sessile; a ciliate scale close to the base of each stamen, stigm. simple. E. Bot.)
Less Dodder. On Heath. — 8. 9. *E. Bot.* 55.
Var. 2. Cal. fleshy at the base, 5-cleft, cor. 5-cleft, stam. 5, pist. 2, seeds 2. With.

TETRAGYNIA.

172. I'lex. *Cal.* 4-toothed. *Cor.* rotate. *Style* 0. *Berry* 4-seeded.

Aquifo'lium. 1. I. Leaves ovate, acute, thorny.
Common Holly. Woods, &c. P. 5. *F. Dan.* 508.

176. Sagi'na. *Cal.* 4-leaved. *Pet.* 4. *Caps.* 1-celled, 4-valved, many seeded.

procum'bens. 1. S. Branches procumbent. (Var. without petals.)
Chickweed Breakstone. Walls, &c. P. 6. *Curt.*

apet'ala. 2. Stem rather erect, pubescent, flowers alternate, apetalous. (Petals very minute. Stokes. emarginate. With.)
Annual Pearlwort. Walls, &c. A. 5. 6. *Curt.*

erec'ta. 3. S. Stem erect, generally 1-flowered.
Upright Pearlwort. Gravelly soil. A. 4. 5. *Curtis.*

cerastoi'des. 4. S. Stem diffuse, dichotomous; leaves spatulate, or obovate, recurved; pedunc. of the ripe fruit reflected. E. Bot. See Cerastium *tetrandrum.*

177. Tillæ'a. *Cal.* 3 or 4-parted. *Pet.* 3 or 4, equal. *Caps.* 3 or 4, many-seeded.

musco'sa. 1. T. Procumbent, flowers 3-cleft. (Stam. 3.)
Mossy Red-shanks. Heaths. P. 5. 6. *E. Bot.* 116.

174. Potamoge'ton. *Cal.* 0. *Petals* 4. *Style* 0. *Seeds* 4.

1. P. Leaves oblongo-ovate, petioled, floating. *na'tans.*
Broad-leaved Pondweed. Pits. P. 7. 8. *F. Dan.* 1025.

2. P. Leaves cordate, embracing the stem. *perfolia'tum.*
Perfoliate Pondweed. Ponds. P. 6—8. *E. Bot.* 168.

3. P. Leaves ovate, acuminate, opposite, crowded, stems dichotomous, spike 4-flowered.
Close-leaved Pondw. Ditches. P. 5. 6. *E. Bot.* 397.

4. P. Leaves lanceolate, flat, ending in peduncles. (Leaves very long and spear-shaped, sessile, upper ones opposite. With.) *lu'cens.*
Long-leaved Pondw. Ponds. P. 6. 7. *F. Dan.* 195.
Var. 2. Leaves ovate, petioled. *E. Bot.* 376.

5. P. Leaves lanceolate, alternate or opposite, undulated, serrated. (Stem compressed, with 2 grooves, one on each side.) *cris'pum.*
Curled Pondweed. Pits, &c. P. 5. 6. *Curt.* 5.

6. P. Leaves linear, obtuse, stem compressed. *compres'sum.*
Flat-stalked Pondw. Ditches. P. 6. 7. *E. Bot.* 418.

7. P. Leaves setaceous, parallel, approximate, 2-rowed.
Fennel-leaved Pondw. Ponds. P. 5—7. *E. B.* 323.

8. P. Leaves lanceolate, opposite, acuminate. *seta'ceum.*
Setaceous Pondweed. Peaty ditches. P. 7. 8.

9. P. Leaves lineari-lanceolate, alternate, sessile, broader than the stipules. *gramin'eum.*
Grass-leaved Pondw. Ditches. P. 7. *F. Dan.* 222.

10. P. Leaves linear, alternate, distinct, sheathing the stem below. *mari'num.*
Sea Pondw. Saltwater ditches. P. 7. 8. *F. Dan.* 186.

11. P. Leaves linear, opposite and alternate, distinct, spreading from the base, stem cylindrical. *pusil'lum.*
Small Pondw. Ponds. A. P. ? 6—8. *E. Bot.* 215.

175. Rup'pia. *Cal.* 0. *Cor.* 0. *Seeds* 4, pedicelled.

1. Rup'pia. *marit'ima.*
Tassel Pondw. Saltw. ditches. A. P. ? 7. 8. *E. Bot.* 136.

CLASS V.

PENTANDRIA.

MONOGYNIA.

1. *Flowers* 1-*petalled*, *inferior*, 4-*seeded*.

ASPERIFOLIÆ.

180. MYOSO'TIS. *Cor.* throat arched, hypocrateriform, lobes emarginate.
181. LITHOSPER'MUM. *Cor.* naked, funnel-shaped. *Cal.* 5-parted.
182. ANCHU'SA. *Cor.* throat arched, funnel-shaped, tube prism-shaped at the base.
183. CYNOGLOS'SUM. *Cor.* throat arched, funnel-shaped. *Seeds* depressed, fixed laterally.
184. PULMONA'RIA. *Cor.* throat naked, funnel-shaped. *Cal.* prismatic.
185. SYM'PHYTUM. *Cor.* throat toothed, ventricose.
188. BORA'GO. *Cor.* throat toothed, rotate.
189. ASPERU'GO. *Cor.* throat arched, funnel-shaped. *Fruit* compressed.
190. LYCOP'SIS. *Cor.* throat arched, funnel-shaped, tube curved.
191. E'CHIUM. *Cor.* throat naked, irregular, campanulate.

2. *Flowers* 1-*petalled*, *inferior*; *seeds in a vessel*.

197. PRI'MULA. *Caps.* one-celled. *Cor.* funnel-shaped, throat pervious. *Stigma* globular.
201. CYCLA'MEN. *Caps.* 1-celled, pulpy within. *Cor.* reflected. *Stigma* acute.
202. MENYAN'THES. *Caps.* 1-celled. *Cor.* villous. *Stigma* bifid.
203. HOTTO'NIA. *Caps.* 1-celled. *Cor.* tube below the stamens. *Stigma* globular.
205. LYSIMA'CHIA. *Caps.* 1-celled, (5 or) 10-valved. *Cor.* rotate. *Stigma* obtuse.

206. ANAGAL'LIS. *Caps.* 1-celled, cut round. *Cor.* rotate. *Stigma* capitate.

212. AZA'LEA. *Caps.* 5-celled. *Cor.* campanulate. *Stigma* obtuse.

215. CONVOL'VULUS. *Caps.* 2-celled, 2-seeded. *Cor.* campanulate. *Stigma* bifid.

217. POLEMO'NIUM. *Caps.* 3-celled. *Cor.* 5-parted. *Stamens* standing on the valves.

245. VERBAS'CUM. *Caps.* 2-celled. *Cor.* rotate. *Stigma* obtuse. *Stamens* declining.

255. CHIRO'NIA. *Caps.* 2-celled. *Cor.* tube urceolate. *Anth.* after shedding the pollen spiral.

247. HYOSCY'AMUS. *Caps.* 2-celled, covered with a lid. *Cor.* funnel-shaped. *Stigma* capitate.

246. DATU'RA. *Caps.* 2-celled, 4-valved. *Cor.* funnel-shaped. *Cal.* deciduous.

295. VIN'CA. *Follicles* 2, erect. *Cor.* hypocrateriform. *Seeds* simple.

251. SOLA'NUM. *Berry* 2-celled. *Anthers* twice perforated.

249. AT'ROPA. *Berry* 2-celled. *Stam.* distant, incurved.

(*Gentiana. Centaurium.* XIX. *Lobelia.*

3. *Flowers* 1-*petalled, superior.*

222. SAM'OLUS. *Caps.* 1-celled, 5-valved at the top. *Cor.* hypocrateriform. *Stigma* capitate.

218. CAMPAN'ULA. *Caps.* 3 or 5-celled, perforated. *Cor.* campanulate. *Stigma* 3-cleft.

220. PHYTEU'MA. *Caps.* 2 or 3-celled, perforated. *Cor.* 5-parted. *Stigma* 2 or 3-cleft.

233. LONICE'RA. *Berry* 2-celled, roundish. *Cor.* unequal. *Stigma* capitate.

(*Viburnum lantana.* IV. *Rubia.*)

4. *Flowers* 5-*petalled, inferior.*

265. RHAM'NUS. *Berry* 3-celled, round. *Cal.* tubular, bearing the corol. *Scales* 5 at the mouth, converging.

371. EUON'YMUS. *Berry* capsular, lobed. *Cal.* spreading. *Seeds* in a berry-like aril.

(XIX. *Viola. Impatiens.*)

5. *Flowers* 5-*petalled, superior.*

281. RI'BES. *Berry* many seeded. *Cal.* corol-bearing. *Style* bifid.

283. HED'ERA. *Berry* 5-seeded. *Cat.* clasping the fruit. *Style* bifid.

(XIX. *Jasione.*)

6. *Flowers incomplete, inferior.*

290. ILLECE'BRUM. *Caps.* 1-seeded, 5-valved. *Cal.* simple, inelegant.

291. GLAUX. *Caps.* 5-seeded, 5-valved. *Cal.* simple, rather inelegant, campanulate.

(*Chenopodium maritimum. Salsola.* VIII. *Polygonum amphibium.* XXII. *Salix Pentandra.* XXIII. *Atriplex.*

7. *Flowers incomplete, superior.*

292. THE'SIUM. *Seed* 1-crowned. *Cal.* staminiferous.

DIGYNIA.

1. *Flowers* 1-*petalled, inferior.*

321. SWER'TIA. *Caps.* 1-celled, 2-valved. *Cor.* rotate, with 5 nectariferous pores.

322. GENTIA'NA. *Caps.* 1-celled, 2-valved. *Cor.* tubular, indeterminate. (*Recept.* of the seeds 2. WITH.)

(IV. *Cuscuta.*)

2. *Flowers* 5-*petalled, inferior.*

(*Staphylea pinnata.*)

3. *Flowers incomplete.*

309. CHENOPO'DIUM. *Seed* 1, orbicular. *Cal.* 5-leaved, leaflets concave. (*Cal.* 5-parted. WITH.)

310. BE'TA. *Seed* 1, reniform. *Cal.* 5-leaved, containing the seed in its base.

311. SAL'SOLA. *Seed* 1, cochleate, covered. *Cal.* 5-leaved.

308. HERNIA'RIA. *Seed* 1, ovate, covered. *Cal.* 5-parted. *Filam.* 5 barren (5 perfect).

316. UL'MUS. *Berry* juiceless, compressed. *Cal.* 1-leaved, shrivelling.

(IV. *Cuscuta europæa.* V. *Staphylea pinnata.* VIII. *Polygonum amphibium.* X. *Scleranthus.* XXI. *Quercus.*

3. *Flowers 5-petalled, superior, 2-seeded.*

UMBELLATÆ.

A. *Involucre universal, and partial.*

Obs. As the universal Invol. are in some cases very deciduous, it will be proper to examine the umbel, before it is fully expanded.

324. ERYN'GIUM. *Flowers* capitate. *Recept.* chaffy.
325. HYDROCOT'YLE. *Flowers* somewhat umbellate, fertile. *Seeds* compressed.
326. SANIC'ULA. *Flowers* somewhat umbellate, (central ones) abortive. *Seeds* muricated.
345. HERACLE'UM. *Flowers* radiate, (difform; some) abortive. *Invol.* deciduous. *Seeds* membranous.
352. OENAN'THE. *Flowers* radiate, (generally) abortive in the ray. *Invol.* simple. *Seeds* crowned, sessile.
329. ECHINOPH'ORA. *Flowers* radiate, some abortive. *Invol.* simple. *Seeds* sessile.
331. CAU'CALIS. *Flowers* radiate, (central ones) abortive. *Invol.* simple. *Seeds* muricated.
333. DAU'CUS. *Flow.* radiate, (central ones) abortive. *Invol.* pinnate. *Seeds* hispid.
330. TORDYL'IUM. *Fl.* radiate, all fertile. *Invol.* simple. *Seeds* crenate at the margin,
339. PEUCED'ANUM. *Fl.* flosculous (uniform, central ones) abortive. *Invol.* simple. *Seeds* depressed, striated.
336. CO'NIUM. *Fl.* flosculous, fertile. *Pet.* cordate. *Seeds* gibbous, ribbed and furrowed. *Involucells* halved.
335. BU'NIUM. *Fl.* flosculous, fertile. *Pet.* cordate. *Involucells* setaceous.
338. ATHAMAN'TA. *Fl.* flosculous, fertile. *Pet.* cordate. *Seeds* convex, striated.
328. BUPLEU'RUM. *Fl.* flosculous, fertile. *Pet.* involute. (Involucells petaliform.)
348. SI'UM. *Fl.* flosculous, fertile. *Pet.* cordate. *Seeds* nearly ovate, striated.
337. SELI'NUM. *Fl.* flosculous, fertile. *Pet.* cordate. *Seeds* depressed, striated.
340. CRITH'MUM. *Fl.* flosculous, fertile. *Pet.* flattish. *Invol.* horizontal.
346. LIGUS'TICUM. *Fl.* flosculous, fertile. *Pet.* involute. *Invol.* membranous.
347. ANGEL'ICA. *Fl.* flosculous, fertile. *Pet.* flattish. *Umbellets* globular.

349. Si'son. *Fl.* flosculous, fertile. *Pet.* flattish. *Umbel* of few rays.

(Coriandrum. Apium graveolens.)

B. *Involucres partial, universal none.*

355. Æthu'sa. *Fl.* somewhat radiate, fertile. *Involucells* halved.

356. Corian'drum. *Fl.* radiate, abortive. *Fruit* nearly globular.

357. Scan'dix. *Fl.* radiate, abortive. *Fruit* oblong.

358. Chærophyl'lum. *Fl.* flosculous, abortive. *Involucells* 5- (—8) leaved.

353. Phellan'drium. *Flow.* flosculous, fertile. *Fruit* crowned.

359. Imperato'ria. *Fl.* flosculous, fertile. *Umb.* spreading, flat.

354. Cicu'ta. *Fl.* flosculous, fertile. *Pet.* flattish.

(Bupleurum rotundifolium. Sison inundatum. Pimpinella. Heracleum Sphondylium. Oenanthe crocata. Caucalis leptophylla. Angelica sylvestris. Bunium Bulbocastanum.)

C. *Invol. none; neither universal, nor partial.*

363. Smyr'nium. *Fl.* flosculous, abortive (in the centre). *Seeds* reniform, angular.

365. Ca'rum. *Fl.* flosculous, abortive (in the centre). *Seeds* gibbous, striated.

362. Pastina'ca. *Fl.* flosculous, fertile. *Seeds* depressed, flat.

364. Ane'thum. *Fl.* flosculous, fertile. *Seeds* marginate, striated.

368. Ægopo'dium. *Fl.* flosculous, fertile. *Seeds* gibbous, striated. *Pet.* cordate.

367. A'pium. *Fl.* flosculous, fertile. *Seeds* minute, striated. *Pet.* inflected.

366. Pimpinel'la. *Fl.* flosculous, fertile. *Umbels* nodding before flowering. *Pet.* cordate.

TRIGYNIA.

1. *Flowers superior.*

370. Vibur'num. *Cor.* 5-cleft. *Berry* 1-seeded.

372. Sambu'cus. *Cor.* 5-cleft. *Berry* 3-seeded.

2. *Flowers inferior.*

374. STAPHYLE'A. *Cor.* 5-petalled. *Caps.* 2 or 3-cleft, inflated.

380. ALSI'NE. *Cor.* 5-petalled. *Caps.* 1-celled. *Cal.* 5-leaved. *Pet.* bifid.

378. CORRIGI'OLA. *Cor.* 5-petalled. *Seed* 1, 3-cornered. *Cal.* 5-parted.

375. TAM'ARIX. *Cor.* 5-petalled. *Caps.* 1-celled. *Seeds* downy.

(III. *Montia fontana. Holosteum umbellatum.* V. *Chenopodium maritimum. Salsola fruticosa, et Kali.* X. *Arenaria rubra, et marina.* XXI. *Quercus.*)

TETRAGYNIA.

384. PARNAS'SIA. *Cor.* 5-petalled. *Caps.* 4-valved. *Nect.* 5, ciliato-glandular.

(IV. *Ilex Aquifolium.* XXI. *Quercus.*)

PENTAGYNIA.

388. STAT'ICE. *Cor.* 5-parted. *Seed* 1, clothed with the funnel-shaped calyx.

389. LI'NUM. *Cor.* 5-petalled. *Caps.* 10-celled, 2-seeded.

391. DRO'SERA. *Cor.* 5-petalled. *Caps.* 1-celled, opening at the top. (*Pistils* generally 6 in the British species.)

393. SIBBAL'DIA. *Cor.* 5-petalled. *Seeds.* 5. *Cal.* 10-cleft.

(IV. *Sagina procumbens.* X. *Spergula pentandra. Cerastium semi-decandrum.* XVI. *Geranium.*)

HEXAGYNIA.

(Drosera.)

POLYGYNIA.

394. MYOSU'RUS. *Cal.* 5-leaved. *Nect.* 5, linguiform. *Seeds* numerous.

(Drosera. XIII. *Ranunculus hederaceus.)*

MONOGYNIA.

180. Myoso'tis. *Cor.* hypocrateriform, 5-cleft, emarginate; throat closed with arches (or valves). (*Nuts* 4, imperforated. With.)

arven'sis. 1. M. Seeds smooth, leaves ovato-lanceolate, hirsute.
Field Mouse-ear. Dry pastures. A. 5. 6. *E. Bot.* 480.

palus'tris. 2. Seeds smooth, leaves lanceolate, smooth (calyx-teeth shorter, more obtuse).
Water Mouse-ear. Moist places. P. 5—7. *Curt.* 165.

Obs. These two species are considered by Lin. Huds. and Smith, as Var. only of M. *scorpioides*, which is thus described by Lin. "Seeds smooth, points of the leaves callous." See *E. Bot.* P. 480. *With.* ii. p. 225.

181. Lithosper'mum. *Cor.* funnel-shaped, throat pervious, naked. *Cal.* 5-parted. (Tube long, slender. *Nuts* 4, hard, imperforated. With.)

officina'le. 1. L. Seeds smooth, corol scarcely longer than the calyx, leaves lanceolate.
Common Gromwell. Woods. P. 5. 6. *E. Bot.* 134.

purpu'ro-cæru'leum. 2. L. Seeds smooth, corol much longer than the calyx. (Leaves lanceolate, barren stems procumbent. E. Bot.)
Creeping Gr. Mountainous past. P. 4. 5. *E. Bot.* 117.

arven'se. 3. L. Seeds wrinkled; corol scarcely longer than the calyx.
Corn Gromwell. Cornfields. A. 5. 6. *E. Bot.* 123.

182. Anchu'sa. *Cor.* funnel-shaped, throat closed with arches. *Seeds* perforated at the base.

sempervi'rens. 1. A. Peduncles axillary, capitate, with 2 opposite sessile bractes; leaves ovate, marked with lines, petioled, remote.
Evergreen Alkanet. Road sides. P. 5—7. *E. Bot.* 45.

183. Cynoglos'sum. *Cor.* funnel-shaped, throat closed with valves. *Seeds* depressed, fixed to the style only by the inner side.

officina'le. 1. C. Stamens shorter than the corol; leaves broad, lanceolate, tomentous, sessile.
Great Hound's-tongue. Rubbish. P. 6. *Curt.* 249.

sylvat'icum. 2. C. Stamens shorter than the corol; leaves lanceolate, harsh, flat, distant, nearly sessile. Jacq. With. C. *officinale*. β. Huds. γ. Lin.
—— Shady lanes, &c, B. 5. *Park.* 512. 5.

184. PULMON'ARIA. *Cor.* funnel-shaped, throat pervious. *Cal.* prismatic, 5-cornered.

1. *Perianth as long as the tube of the corol.*

1. P. Root-leaves lanceolate. *angus'tifo'lia.*
Bugloss Cowslips. New Forest. *F. Dan.* 483.
2. P. Root-leaves ovato-cordate, rough. (Upper leaves ovate, acute; cal. nearly as long as the tube. E. BOT.) *officina'lis.*
Spotted Lungwort. Woods. P. 4. 5. *E. Bot.* 118.

2. *Calyx only half the length of the tube of the corol.*

3. P. Leaves ovate, stem branched, procumbent. *marit'ima.*
Sea Lungw. Sea shores. P. 7. *Curt. E. Bot.* 368.
Obs. A magnifying-glass shews a manifest roughness upon many parts of it. CURTIS.

185. SYM'PHYTUM. *Cor.* Limbus tubular, ventricose, throat closed with subulate rays. (*Cor.* funnel-shaped, ventricose towards the top, mouth closed by hollow radiate valves, which have an open hole on the outside near the border. *Nuts* 4, perforated. WITH.)

1. S. Leaves ovato-lanceolate, decurrent. *officina'le.*
Common Comfrey. Wet ditches. P. 5. *Curt.* 230.
2. S. Leaves half-decurrent, the highest opposite. Is it a *Var.* of the former? *tubero'sum?*
Tuberous-root. Comfrey. Fen banks. P. 7. *Ger.* 806.

188. BORA'GO. *Cor.* rotate, throat closed with rays. (*Nuts* 4, not perforated. WITH.)

1. B. All the leaves alternate, calyxes spreading. *officina'lis.*
Common Borage. Rubbish. P. 6—8. *E. Bot.* 36.

189. ASPERU'GO. *Cal.* of the fruit compressed, the sides flat, parallel, sinuate.

1. A. Calyxes, when in fruit, compressed. *procum'bens.*
Trailing Catchweed. Rubbish. A. 4. 5. *F. Dan.* 552.

190. LYCOP'SIS. *Cor.* tube crooked.

1. L. Leaves lanceolate, hispid, calyxes erect when flowering. *arven'sis.*
Wild Bugloss. Road sides. A. 6—9. *Curt.* 336.

191. E'CHIUM. *Cor.* irregular, throat (open) naked. *Nuts* 4, large, rough, imperforated. WITH.)

ital'icum. 1. E. Stem erect, hairy, spikes hirsute, corols nearly equal, stamens very long.
Wall Viper-grass. Jersey. P. *Ger.* 802. 1.

vulga're. 2. E. Stem tubercled, hispid; stem-leaves lanceolate, hispid, flowers in lateral spikes.
Com. Viper-gr. Sandy cornfields. B. 6—8. *E. B.* 181.

viola'ceum 3. E. Cor. as long as the stamens, tube shorter than the calyx. (Stem flaccid, rough with strong hairs; filaments and style smooth. WITH.)
—— Cornfields. — 8. *Ger.* 802. 4.

197. PRI'MULA. *Umbellet* with an *Invol. Cor.* tube cylindrical, mouth open.

vulga'ris. 1. P. Leaves toothed, wrinkled, scape about 1-flowered, limbus of the cor. flat. HUDS. WITH. E. BOT. P. *veris.* γ. Lin. P. *acaulis.* Curt.
Com. Primrose. Woods, &c. P. 4. 5. *Curt. E. Bot.* 4.

Obs. Lin. asserts that there is a short common pedunc. or scape, concealed under ground; but this, according to Martin, is seldom to be met with.

Var. 2. *purpurea.* Scape many-flowered, cor. purple, scape, pedunc. and calyx extremely hairy. *Martin* 62. Perhaps this Var. might be more properly referred to the next species.

ela'tior. 2. P. Leaves toothed, wrinkled, scape many-flowered, outermost flowers cernuous, limbus of the cor. flat. WITH. P. *veris.* β. Lin. P. *vulgaris.* β. Huds.
Oxlip. Woods P. 4. 5. *F. Dan.* 454. *Ger.* 780. 2.

ve'ris. 3. P. Leaves toothed, wrinkled, scape many-flowered (all the flowers cernuous, WITH.), limbus of the cor. concave. HUDS. E. BOT. P. *veris* α. Lin. P. *officinalis.* With.
Cowslip. Meadows. P. 4. 5. *Curt.* 67. *Ger.* 780. 1.

Obs. The above three species are included under P. *veris* by Lin. with this char. "Leaves toothed, wrinkled." The first and third species are permanently distinct; the second forms an intermediate link between them, and the Var. *purpurea* may be regarded as a link between P. *elatior*, and *veris.* Moreover, a Var. of P. vulgaris has been found differing in no respect from the common sort, except in pushing up a scape sustaining several flow., and forming a more perceptible connection with P. *elatior.* See Flora Rustica. P. 62.

farino'sa. 4. P. Leaves crenate, smooth, limbus of the corol flat.
Bird's-eye. Meadows, &c. P. 5. *Curt. E. Bot.* 6.

201. CYCLA'MEN. *Cor.* rotate, reflected, tube very short, throat prominent. *Berry* covered with a capsule. (*Recept.* fleshy, supporting a berry inclosed in a case. WITH.)

1. Corol retroflected. *europæ'um.*
—— In Suffolk, &c. P. — *Jacq. Austr.* 401.

202. MENYAN'THES. *Cor.* hirsute. *Stigma* 2-cleft. *Caps.* 1-celled.

1. M. Leaves 3 together. (Segments of the corol entire at the margin, hirsute on the upper surface. WITH.) *trifolia'ta.*
Marsh Trefoil. Moist places. P. 6. 7. *Curt.* 240.

2. M. Leaves cordate, very entire, segments of the corol ciliate. *nymphoi'des.*
Fringed Bogbean. Ditches. P. 7. 8. *E. Bot.* 217.

203. HOTTO'NIA. *Cor.* hypocrateriform. *Stam.* standing on the margin of the tube of the corol. *Caps.* 1-celled.

1. H. Peduncles verticillate; many-flowered. *palus'tris.*
Water Violet. Ponds. P. 6. 7. *Curt. E. Bot.* 364.

205. LYSIMA'CHIA. *Cor.* rotate. *Caps.* globular, mucronate, (5 or) 10-valved.

1. *Peduncles many-flowered.*

1. L. Panicled, racemes terminal (and axillary). *vulga'ris.*
Yellow Loose-strife. Shady marshes. P. 6. 7. *Curt.*

2. L. Racemes lateral, peduncled. *thyrsiflo'ra.*
Tufted Loose-strife. Marshes. P. 6. *E. Bot.* 176.

2. *Peduncles* 1-*flowered.*

3. L. Leaves ovate, acute, flowers solitary, stem creeping. *nem'orum.*
Yellow Pimpernell. Woods. P. 5. 6. *Curt.* 328.

4. L. Leaves somewhat cordate, flowers solitary, stem creeping. *nummula'ria.*
Moneywort. Moist meadows, &c. P. 6. *Curt.* 149.

206. ANAGAL'LIS. *Cor.* rotate. *Caps.* cut round.

1. A. Leaves undivided (ovato-lanceolate), stem procumbent. *arven'sis.*
Var. 1. Corol scarlet.
Male Pimpernell. Cornfields. A. 5—8. *Curt. Ger.*
Var. 2. Corol blue. A. *cærulea* Gmelin.
Female Pimpernell. Cornfields. A. 5. 8. *Blackw.*

tenel'la. 2. A. Leaves ovate, rather acute, stem creeping. Lysimachia *tenella.* Huds.
Bog Pimpernell. Boggy places. P. 6. 8. *Curt.* 187.

212. AZA'LEA. *Cor.* campanulate. *Stam.* inserted in the receptacle. *Caps.* (2—) 5-celled.

procum'bens. 1. A. Branches diffuse, procumbent.
Trailing Rose-bay. Highland M. P. 6. *F. Dan.* 9.

215. CONVOL'VULUS. *Cor.* campanulate, plaited. *Stigm.* 2. *Caps.* 2-celled, cells 2-seeded.

1. *Stem twining.*

arven'sis. 1. C. Leaves sagittate, on both sides acute, peduncles generally 1-flowered.
Small Bindweed. Cornfields. P. 6. 7. *Curt.*
Var. 2. Leaves sagittato-linear: smaller. RAY syn. 276. *Pluk.* 24. 3.
—— 3. Corol very small, divided almost to the base. DILL. in Ray syn. 276.

sep'ium. 2. C. Leaves sagittate, truncated behind, peduncle 4-cornered, 1-flowered. (2 bractes near the cal.)
Great Bindweed. Hedges. P. 7—8. *Curt. E. Bot.* 313.

2. *Stem not twining.*

Soldanel'la. 3. C. Leaves reniform, peduncles 1-flowered.
Sea Bindweed. Sea shore. P. 7. *E. Bot.* 314.

217. POLEMO'NIUM. *Cor.* 5-parted, the bottom closed with staminiferous valves. *Stig.* 3-cleft. *Caps.* 3-celled, superior.

cæru'leum. 1. P. Leaves pinnate, flowers erect, calyxes longer than the tube of the corol.
Com. Jacob's-ladder. Near Buxton. P. 6. *E. Bot.* 14.

245. VERBAS'CUM. *Cor.* rotate, rather unequal. *Caps* 1-celled, 2-valved.

Thap'sus. 1. V. Leaves decurrent, on both sides tomentous, stem simple.
Great White Mullein. Dry banks. B. 7. *Woodv.* 125.
Var. 2. *Thapso-nigrum.* Leaves ovato-oblong, lower ones petioled, middle ones sessile, upper ones decurrent, stem branched, flow. several together, sessile. Mr. ROBSON.

Thapsoi'des. 2. V. Leaves decurrent, stem branched.
Bastard Mullein. Chalky past. B. 7. 8. *Ger.* 773. 2.

Lychni'tis. 3. V. Leaves oblongo-cuneiform.
Hoary Mullein. Chalky pastures, &c. 7. *E. Bot.* 58.
Var. 2. *Powdery.* Plant with a meal-like down.

4. V. Leaves cordato-oblong, petioled. *ni'grum.*
Black Mullein. Road sides. P. 7—9. *E. Bot.* 59.

5. V. Root-leaves somewhat lyre-shaped; stem-leaves sessile, stem branching, peduncles several together, sessile. STOKES. *virga'tum.*
—— Near Worcester. — *Lob. ic.* 564.

6. V. Leaves embracing the stem, oblong, smooth, peduncles solitary (1-flowered). *Blatta'ria.*
Yellow Moth M. Grav. soil. A. 6. 7. *E. Bot.* 393.

255. CHIRO'NIA. *Cor.* rotate (funnel-shaped). *Pist.* declining. *Stam.* sitting on the tube of the cor. *Anth.* becoming spiral, *Pericarp* 2-celled.

1. C. Stem herbaceous, dichotomously panicled, leaves ovato-lanceolate; cal. shorter than the tube of the corol. E. BOT. WITH, *Gentiana Centaurium.* Lin. *Centau'rium.*
Less Centaury. Pastures, &c. A, 6—8. *Curt.* 247.

2. C. Corol funnel-shaped, tube long, stem undivided. WITH. (Stem herbaceous, much branched; leaves ovate; calyx-teeth subulate, above half as long as the tube; flow. peduncled. E. BOT. G. *Centaurium* β. Lin. *pulchel'la.*
Dwarf-branched C, Gorlestone. 8. 9. *E. Bot.* 458.

247. HYOSCY'AMUS. *Cor.* funnel-shaped, obtuse. *Stam.* inclined. *Caps.* with a lid, 2-celled.

1. H. Leaves embracing the stem, sinuate, flowers sessile. *ni'ger.*
Common Henbane. Road sides. A. 6. *Ger.* 353. 1.

246. DATU'RA. *Cor.* funnel-shaped, plaited. *Cal.* tubular, angular, deciduous. *Caps,* 4-valved.

1. D. Pericarp thorny, erect, ovate, leaves ovate, smooth. *Stramo'nium.*
Thorn Apple. On rubbish. A. 7. *F. Dan.* 436.

295. VIN'CA. *Cor.* contorted. *Follicles* 2, erect. *Seeds* naked.

1. V. Stems procumbent, leaves lanceolato-ovate, flowers peduncled. *mi'nor.*
Less Periwinkle. Hedges. P, 5. *Curt.* 172.

2. V. Stems erect, leaves ovate, flowers peduncled. *ma'jor.*
Greater Periwinkle. Hedges. P, 5. *Curt.* 222.

251. SOLA'NUM. *Cor.* rotate. *Anth.* somewhat united, a double pore at the top of each. *Berry* 2-celled.

Dulcama'ra. 1. S. Stem unarmed, shrubby, flexuose, upper leaves hastate, racemes cymose.
Bitter-sweet. Moist hedges. P. 6. 7. *Curtis.*

ni'grum. 2. S. Stem unarmed, herbaceous, leaves ovate, toothed, angular, racemes 2-rowed, nodding.
Common Nightshade. On rubbish. A. 6—10. *Curt.*

249. AT'ROPA. *Cor.* campanulate. *Stam.* distant. *Berry* globular, 2-celled.

Belladon'na. 1. A. Stem herbaceous, leaves ovate, entire.
Deadly Nightshade. Hedges. P. 6—8. *Curt.* 347.

222. SAM'OLUS. *Cor.* hypocrateriform. *Stam.* defended by the scales of the corol. *Caps.* 1-celled, inferior.

Valeran'di. 1. SAMOLUS.
Pimpernell Brookweed. Marshes. P. 6. 7. *Curt.* 268.

218. CAMPAN'ULA. *Cor.* campanulate, the bottom closed by staminiferous valves. *Stig.* 3-cleft. *Caps.* inferior, opening with (3) lateral pores.

1. *Leaves smoother (narrower. M.).*

rotundifo'lia. 1. C. Root-leaves reniform, stem leaves linear.
Round-leaved Bell-flower. Com. P. 8—10. *Curt.*
Var. 2. Single-flowered, root-leaves cordate, stem-leaves lanceolate. *F. Dan.* 855.

pat'ula. 2. C. Leaves stiff and straight, root-leaves lanceolato-oval (ovate), panicle patulous.
Field Bell-flower. Road sides. B. 7. 8. *E. Bot.* 42.

Rapun'culus. 3. C. Leaves undulated, root-leaves lanceolato-oval, panicle compact.
Rampion Bell-fl. Hedge banks. B. 7. 8. *E. Bot.* 283.

2. *Leaves rough (broader. M.).*

latifo'lia. 4. C. Leaves ovato-lanceolate, stem very simple, cylindrical, flowers solitary, peduncled, fruit cernuous.
Giant Throatwort. Woods. P. 7. 8. *E. Bot.* 302.

Trache'lium. 5. C. Stem angular, leaves petioled, calyxes ciliate, peduncles 3-cleft.
Canterbury Bells. Hedges. P. 7. 8. *E. Bot.* 12.

glomera'ta. 6. C. Stem angular, simple, flowers sessile, forming a terminating head.

Clustered Bell-fl. Chalky past. P. 7. 8. *E. Bot.* 90.

3. *Caps. covered by the reflected segm. of the cal.* WITH.

7. C. Leaves cordate, 5-lobed, petioled, smooth, stem flaccid. *hedera'cea.*
Ivy-leaved Bell-fl. Shady pl. P. 5—8. *E. Bot.* 73.

4. *Capsules prism-shaped.* WITH.

8. C. Stem somewhat branched at the base, leaves oblong, crenate, undulated, longer than the corol; caps. prismatic. *hy'brida.*
Corn Bell-fl. Chalky cornfields. A. 6. 7. *E.B.* 375.

220. PHYTEU'MA. *Cor.* rotate, 5-parted, segments linear. *Stigma* 2 or 3-cleft. *Caps.* 2 or 3-celled, inferior.

1. P. Head roundish, leaves serrated, root-leaves cordate (bractes lanceolato-linear, ciliate). *orbicula'ris*
Round-head. Rampion. Chalky p. P. 7. 8. *E.B.* 142.

233. LONICE'RA. *Cor.* 1-petalled, irregular (tubular). *Berry* 2-celled, many-seeded, inferior.

1. L. Heads ovate, imbricated, terminal, leaves distinct. *Pericly'menum.*
Com. Honeysuckle. Hedges. S. 5. 6. *Curt.*

2. L. Peduncles 2-flowered, berries distinct, leaves very entire, pubescent. *Xylos'teum.*
Upright Honeysuckle. Woods. S. 5. *F. Dan.* 808.

265. RHAM'NUS. *Cal.* tubular, scales defending the stamens. *Cor.* 0. A *Berry.* (*Cal.* tubular. *Pet.* 5, opposite to the stam. *Berry* few-seeded. E. BOT.)

1. *Thorny.*

1. R. Thorns terminating; flowers 4-cleft, dioicous, leaves ovate, stem erect. (Seeds 4.) *cathar'ticus.*
Purging Buckthorn. Woods. S. 4. 5. *F. Dan.* 850.

2. *Unarmed.*

2. R. Flow. herm., monogynous, leaves very entire. (Seeds 2.) *Fran'gula.*
Alder Buckthorn. Woods. S. 4. 5. *E. Bot.* 250.

271. EUON'YMUS. *Cor.* 5-petalled. *Caps.* 5-cornered, 5-celled, 5-valved, coloured. *Seed* calyptred.

europæ'us. 1. E. Flowers mostly 4-cleft (4-petalled), leaves (nearly) sessile.
Com. Spindle-tree. Woods. S. 5. 6. *E. Bot.* 362.

281. RI'BES. *Pet.* 5, and stamens inserted in the calyx. *Style* bifid. *Berry* inferior, many-seeded.

1. *Currants. Unarmed.*

ru'brum. 1. R. Racemes smooth, pendulous, flow. flattish.
Red Currants. Woods. S. 5. *F. Dan.* 967.

alpi'num. 2. R. Racemes erect, bractes longer than the flower. (Sometimes dioicous.)
Sweet Mountain Currants. Hedges. S. 5. *F. Dan.* 968.

spica'tum. 3. R. Spikes erect, petals oblong, bractes shorter than the flowers. ROBSON. Lin. Tr. V. iii.
— Near Richmond, Yorks. S. 4. 5. *Lin. Tr.* iii. 21.

ni'grum. 4. R. Racemes hairy, flowers oblong.
Black Currants. Wet hedges. S. 5. *F. Dan.* 556.

2. *Gooseberries. Prickly.*

Grossula'ria. 5. Branches prickly, petioles ciliate with hairs, berries hirsute. (Fl. scales 2 or 3, opposite, embracing the peduncle. STOKES.)
Rough Gooseberry. Hedges. S. 4. *Walc.*

U'va-cris'pa. 6. Branches prickly, berries smooth, peduncles with a 1-leaved (3-parted) bracte.
Smooth Gooseberry. Hedges. S. 4. 5. *Ger.* 1324.
Obs. Seeds from the same plant produce rough and smooth gooseberries. ROBSON.

283. HED'ERA. *Pet.* 5, oblong. *Berry* 5-seeced, surrounded by the calyx.

He'lix. 1. H. Leaves ovate and lobed.
Common Ivy. Hedges, Woods, &c. S. 10. *Curtis.*

290. ILLECE'BRUM. *Cal.* 5-leaved, cartilaginous. *Cor.* 0. *Stig.* simple. *Caps.* 5-valved, 1-seeded.

verticilla'tum. 1. Fl. verticillate, naked, stems procumbent.
Whorled Knot-grass. Marshes. P. 7. *F. Dan.* 335.

291. GLAUX. *Cal.* 1-leaved. *Cor.* 0. *Caps.* 1-celled, 5-valved, 5-seeded.

marit'ima. 1. GLAUX.
Sea Milkwort. Salt marshes. P. 6. 7. *E. Bot.* 13.

292. THE'SIUM. *Cal.* 1-leaved, stamens inserted in it. *Seed* 1, inferior.

1. T. Panicle leafy, leaves linear. (Spike branched, bractes ternate, leaves lineari-lanceolate, cal. tube very short. E. BOT.) *linophyl'lum.*
Bastard Toad-flax. Heaths. P. 6. 7. *E. Bot.* 247.

DIGYNIA.

321. SWER'TIA. *Cor.* rotate. *Nectariferous* pores at the base of the segments of the corol. *Caps.* 1-celled, 2-valved.

1. S. Corol 5-cleft, root-leaves oval. *peren'nis.*
Marsh Gentian. Mountains. P. 8. *Ger.* 433. 5.

322. GENTIA'NA. *Cor.* 1-petalled. *Caps.* 2-valved, 1-celled. *Recept.* 2, longitudinal.

1. G. Cor. 5-cleft, campanulate, peduncled, leaves linear. (Anth. syngenesious.) *Pneumonan'the.*
Calathian Violet. Heaths. P. 8. *E. Bot.* 20.

2. G. Corols 5-cleft, funnel-shaped, branches 1-flowered, alternate (calyx with 5 keeled angles). *niva'lis.*
—— On Ben Lawers. A. *F. Dan.* 17.

3. G. Corols 5-cleft, hypocrateriform, throat bearded. (Calyx-segments equal.) *Amarel'la.*
Autumnal Gentian. Chalky p. A. 8. 9. *E. Bot.* 236.

4. G. Corols 4- (or 5) cleft, throat bearded (2 outer calyx-segments larger). *campes'tris.*
Field Gentian. Mountains. A. 8. 9. *E. Bot.* 237.

5. G. Corol campanulate, (4-cleft) not bearded, pistil woolly, stigmas 3, leaves lanceolato-linear, hairy. (Stam 4—5? short.) WITH. *colli'na.*
— Aston Down, Isle of Wight. 5. *With.* pl. 11.

6. Cor. 5-cleft, funnel-shaped, stem dichotomous, pist. simple. See Chironia *Centaurium.* P. 51. *Centau'rium.*

7. G. Cor. 4-cleft, beardless, stem dichotomous, filiform. See Exacum *filiforme.* Page 35. *filifor'mis.*

309. CHENOPO'DIUM. *Cal.* 5-leaved (5-cleft) 5-cornered (5-ribbed). *Cor.* 0. *Seed* 1, lenticulat, superior (horizontal, covered by the converging calyx. CURT.).

1. *Leaves angular.*

Bonus-Henri'cus. 1. C. Leaves triangulari-sagittate, very entire, spikes compound, leafless, axillary.
Com. English Mercury. On rubbish, P. 5. *Curt.* 184.

ur'bicum. 2. C. Leaves triangular, somewhat toothed, racemes crowded, very long and straight, applied close to the stem.
Upright Goosefoot. Dunghills. A. 8. 9. *Pet.* 8. 8.

ru'brum. 3. C. Leaves cordato-triangular, rather obtuse, toothed, racemes erect, compound, rather leafy, shorter than the stem.
Red Goosefoot. Rubbish. A. 8. *Curtis.*
Obs. This plant varies extremely according to the situation in which it is found, on dunghills the stem is erect, and frequently 2 or 3 feet in height; on poor soil the whole plant is procumbent and in a dwarfish state. It also varies in colour, being either of a pale green, or of a fine purple. It is distinguished with certainty from C. *urbicum* by the size of the seeds, which in the *rubrum* are scarcely larger than the grains of writing sand, in the *urbicum* are nearly the size of a rape-seed. See CURTIS.

al'bum. 4. C. Leaves rhomboideo-triangular, eroded, entire behind, the highest oblong, racemes erect.
White Goosefoot. On rubbish. A. 8. *Curtis.*
Var. 2. γ. Huds. Racemous, leaves entire. DILL. in Ray syn. 155.
—— 3. δ. Huds. Leaves thick and obtuse. DILL. in Ray syn. 156.

vir'ide. 5. C. Leaves rhomboid, dentato-sinuated, racemes branched, rather leafly. C. *album* β. Huds. A Variety of the former?
Green Goosefoot. Gardens. A. 8. *Curt.* 103.

hy'bridum. 6. C. Leaves cordate, angular, acuminate, racemes branched, naked.
Maple-leaved Goosefoot. Rubbish. A. 8. *Curt.* 248.

glau'cum. 7. C. Leaves ovato-oblong, repand, racemes naked, simple, clustered.
Oak-leaved Goosefoot. Rubbish. A. 8. *Pet.* 8. 1.

mura'le. 8. C. Leaves ovate, shining, toothed, acute; racemes branched, naked.
Wall Goosefoot. Rubbish. A. 7. 8. *Pet.* 8. 5.

2. *Leaves entire.*

Vulva'ria. 9. C. Leaves very entire, rhomboideo-ovate, flowers axillary, conglomerate. (C. *Olidum.* With.)
Stinking Goosefoot. Road sides, &c. A. 8. *Curtis.*

10. C. Leaves very entire, ovate, stem decumbent, cymes dichotomous, leafless, axillary. (Stem erect, calyx of the fruit open. CURT.) *polyspermum.*
Upright Blite. Dunghills, &c. A. 7. 8. *Curtis.*

11. C. Leaves subulate, semi-cylindrical. *maritimum.*
Sea Goosefoot. Salt marshes. A. 8. *F. Dan.* 489.

310. BE'TA. *Cal.* 5-leaved (5-cleft). *Cor.* 0. *Seed* reniform, within the substance of the base of the calyx.

1. B. Flowers in pairs. (Cal. entire, stem procumbent. E. BOT.) *maritima.*
Sea Beet. Sea coast. P. 7—9. *E. Bot.* 285.

311. SAL'SOLA. *Cal.* 5-leaved (5-cleft). *Cor.* 0. *Caps.* 1-seeded, cochleate. (*Seed* 1, inferior, coated by the calyx.)

1. S. Herbaceous, decumbent, leaves subulate, thorny, rough, calyxes marginate, axillary. *Kali.*
Prickly Glasswort. Sea shore. A. 7. 8. *F. Dan.* 418.

2. S. Shrubby, erect, leaves filiform, rather obtuse. *fruticosa.*
Shrub Glasswort. Sea shore. S. 8. *Lob. adv.* 163. 3.

308. HERNIA'RIA. *Cal.* 5-parted. *Cor.* 0. *Stam.* 5, imperfect. *Caps.* 1-seeded.

1. H. Plant smooth. *glabra.*
Smooth Rupturewort. Grav. soil. P. 7. 8. *E. B.* 206.

2. H. Plant hirsute. (A variety of the former?) *hirsuta.*
Hairy Rupturew. Grav. soil. A. 7. 8. *Pet.* 10. 10.

316. UL'MUS. *Cal.* 5-cleft. *Cor.* 0. *Berry* juiceless, compressed, membranous.

1. U. Leaves doubly-serrated, unequal at the base. (Flowers almost sessile, crowded.) *campestris.*
Common Elm. Hedges. T. 4. *Ger.* 1480. 1. *F. D.* 632.
Var. 2. *Narrow-leaved Elm.* β. Huds. Less, leaves narrow, rough. RAY syn. 469. 2.
—— 3. *Smooth-leaved Elm.* δ. Huds. Leaf smooth. RAY syn. 469. 4.

2. U. Leaves doubly-serrated, unequal at the base, ovato-acuminate, smooth. (Flowers on long peduncles.) WITH. U. *campestris.* γ. Huds. *montana.*
Broad-l. Elm. Shady lanes. T. 4. 5. *Ger.* 1481. 3.

324. ERYN'GIUM. *Flowers* capitate. *Recept.* chaffy.

marit'imum. 1. E. Root-leaves roundish, plaited, thorny; heads peduncled, chaff 3-pointed.
Sea Holly. Sea shore. P. 7. 8. *F. Dan.* 875.

campes'tre 2. E. Root-leaves embracing the stem, pinnate, lanceolate.
Field Eryngo. Near Daventry. P. 7. 8. *E. Bot.* 57.

325. HYDROCOT'YLE. *Umbel* simple. *Invol.* (2 or) 4-leaved. *Pet.* entire. *Seeds* semi-orbicular, compressed.

vulga'ris. 1. H. Leaves peltate, umbels 5-flowered.
Marsh Pennywort. Marshy gr. P. 5. 6. *Ger.* 529. 5.

326. SANIC'ULA. *Umb.* crowded, somewhat capitate. *Fruit* rough. *Flow.* of the disk abortive.

europæ'a. 1. S. Root-leaves simple, florets all sessile.
Common Sanicle. Woods. P. 5. 6. *E. Bot.* 98.

345. HERACLE'UM. *Fruit* elliptical, emarginate, compressed, striated, marginate. *Cor.* irregular, inflexo-emarginate. *Invol.* caducous.

Sphondyl'ium. 1. H. Leaflets pinnatifid, smooth, flowers uniform.
Cow Parsnep. Hedges, &c. B. 7. *Ger.* 1009.
Var. 2. *Narrow-leaved.* Leaflets lanceolate. ST. *Pet.* 24. 2.

352. OENAN'THE. *Florets* difform; sessile in the disk, barren. *Fruit* crowned with the calyx and pistils.

fistulo'sa. 1. Oe. Stoloniferous, stem-leaves pinnate, filiform, fistulous. (Florets of the ray abortive; Invol. universal sometimes 0.)
Water Dropwort. Ditch. P. 7. *E. Bot.* 363. *Ger.* 1060.

croca'ta. 2. Oe. All the leafl. many-cleft, obtuse, nearly equal.
Hemlock Dropwort. Ditches. P. 6. 7. *Woodv.* 267.

pimpinelloi'des. 3. Oe. Root-leaflets cuneiform, cloven, stem-leaflets entire, very long, simple, linear.
Parsley Dropw. Salt marshes. P. 7. 8. *E. Bot.* 347.

peucedanifo'lia. 4. Oe. Leaflets all linear, universal invol. none, knobs of the root sessile, elliptical. E. BOT. POLLICH. Oe. *fistulosa* Var. 2. *peucedanifolia.* With.
Sulphur-wort Dropw. Ditches, &c. 6. *E. Bot.* 348.

326. ECHINOPH'ORA. *Lateral florets* male, *central one* hermaphrodite. *Seed* 1, immersed in the involucret.

1. E. Leaflets subulate, thorny, very entire. *spino'sa ?*
Sea Parsnep. Sea coast. P. 7. *Ger.* 533. 2.

Obs. This plant is no longer to be found at Roosbeck in Low Furness, the habit. mentioned by Ray, and it is suspected to have been only the Salsola *Kali.* See With.

331. CAU'CALIS. *Cor.* radiate, *florets* of the disk male. *Pet.* inflexo-emarginate. *Fruit* rough with bristles. *Invol.* leaflets entire.

1. C. Universal invol. scarcely any, umbel cloven, involucrets 5-leaved. *leptophyl'la.*
—— Cornfields. A. 7. *Jacq. hort.* 195.
2. C. Umbels 3-cleft, leafless, umbellets 3-seeded, 3-leaved. *daucoi'des.*
Bastard Parsley. Chalky cornfi. A. 5. 6. *E. B.* 197.
3. C. Umbel universal 3-cleft, partial 5-seeded; invol. membranous) leaves pinnate, serrated. (Seeds ovate, prickly.) *latifo'lia.*
Broad-l. Hen'sfoot. Cornfields. A. 7. *E. Bot.* 198.
4. C. Inv. 1-leaved or 0; seeds ovate, styles reflected, leaves decompound, terminating leaflet lineari-lanceolate, stem much branched. AITON. HUDS. *arven'sis.*
Corn Hen'sf. Chalky cornfi. A. 7. 8. *Jacq. A.* iii. 16.
5. C. Invol. many-leaved, seeds ovate, styles reflected, leaves decompound, the terminating leaflet lineari-lanceolate. AITON. Tordylium *Anthriscus.* Lin. *Anthris'cus.*
Hedge Hen'sfoot. Hedges. B. 8. *F. Dan.* 919.
6. C. Seeds ovate, acuminate, with short hooked prickles on the back. WITH. Scandix *Anthriscus.* Lin. Huds. &c. *scandici'na.*
—— Road sides. A. 5. 6. *Curt. Mart.* 75.
7. C. Umbels lateral, simple, almost sessile, seeds ovate, outer ones bristly, inner ones rough, WITH. Tordylium *nodosum.* Lin. *nodo'sa.*
Knotted Hen'sfoot. Cornfields. A. 6. *E. Bot.* 199.

33. DAU'CUS. *Cor.* somewhat radiate, all the florets hermaph. *Fruit* hispid with hairs.

1. D. Seeds hispid, petioles nerved underneath. (Angles of the seeds 4, distant, hispid; umbel concave when in seed.) *Caro'ta.*
Com. Wild Carrot. Hedge sides. B. 6—8. *Mart.* 82.
2. D. Angles of the seeds 4 large, and 3 small, umbels convex when in fruit. WITH. *marit'imus.*
Sea-coast Carrot. Coast of Cornwall. — 7. 8.

330. TORDYL'IUM. *Cor.* radiate, all the florets hermaph. *Fruit* somewhat orbicular, margin (thick) crenate. *Invol.* long, undivided.

max'imum. 1. T. Umbels crowded, radiate, leaflets lanceolate, inciso-serrated (terminating leaflet lineari-lanceolate; involucrets longer than the florets).
—— Banks of fields. A. 6. *Ger.* 1021. 4.

officina'le. 2. T. Involucrets as long as the flowers, leaflets ovato-lanceolate (terminating leaflet rather cuneiform).
Small Hartwort. Cornfields. A. 6. *Ger.* 1050. 1.

Anthris'cus. 3. T. Umbels crowded, leafl. ovato-lanceolate, pinnatifid. See Caucalis *Anthriscus.* Page 59.

Nodo'sum. 4. T. Umbels simple sessile, outer seeds hispid. See Caucalis *nodosa.* Page 59.

339. PEUCED'ANUM. *Fruit* ovate, on both sides striated, surrounded with a wing. *Invol.* very short.

officina'le. 1. P. Leaves 5 times 3-parted, filiform, linear.
Hog's Fennel. Salt marshes. P. 6. 7. *Ger.* 1054. 1.

mi'nus. 2. P. Leaves pinnate, leaflets pinnatifid, segments linear, opposite, stem very much branched, patulous. HUDS. Ed. 1. LIN. See Pimpinella *dioica.*

Sila'us. 3. P. Leaflets pinnatifid, segments opposite, universal involucre 2-leaved.
Meadow Saxifrage. Meadows. P. 8. *Ger.* 1048. 2.

336. CO'NIUM. *Involucret* halved, about 3-leaved. *Fruit* nearly globular, 5-striated, on both sides crenate.

macula'tum. 1. C. Seeds striated, (without prickles; stem much branched, smooth, spotted.)
Common Hemlock. Hedges, &c. B. 6. 7. *Curt.* 1. 7.

335. BU'NIUM. *Cor.* uniform. *Umbel* crowded. *Fruit* ovate.

Bulbocas'tanum? 1. B. Invol. many-leaved, stem with leaves at the base, rising from the root, styles deciduous. *Ger.* 1064. 2.

flexuo'sum. 2. B. Involucre 1—3-leaved, deciduous; stem leafless at the base, tapering downwards, flexuose, styles permanent. WITH.
Earth Nut. Pastures, &c. P. 5. 6. *Ger.* 1064. 1.

338. ATHAMAN'TA. *Fruit* ovato-oblong, striated. *Pet.* inflexo-emarginate.

1. A. Leaves bipinnate, flat; umbel hemispherical, seeds hirsute. A. *Oreoselinum*. Huds. *Libano'tis.*
Mount. Spignel. Gogmagog hills. P. 8. 9. *E. B.* 138.

328. Bupleu'rum. *Involucrets* larger (than the umbels); 5-leaved. *Pet.* involute. *Fruit* roundish, compressed, striated.

1. B. Universal Invol. none, leaves perfoliate. (Involucrets ovate, mucronate.) *rotundifo'lium.*
Com. Thoroughwax. Cornfi. A. 6. 7. E. Bot. 99.

2. B. Umbels (axillary) simple, alternate, (invol.) 5-leaved, about 3-flowered. *tenuis'simum.*
Least Thoroughwax. Past. A. 7. 8. *E. Bot.* 478.

348. Si'um. *Fruit* somewhat ovate, striated. *Invol.* many-leaved. *Pet.* cordate. (*Styles* bent back.)

1. S. Umbels terminating; leaves pinnate (leaflets oblongo-lanceolate, equally serrated. E. Bot.). *latifo'lium.*
Broad-leaved Skirrett. Fens. P. 7. 8. *E. Bot.* 204.
Obs. When growing under water, the root-leaflets deeply incised, segm. linear. Huds.

2. S. Leaves pinnate, umbels axillary, peduncled, invol. pinnatifid. (Leaves pinnate, leafl. cordate, lobed, unequally serrated; umbels peduncled, oppositifolious and terminating. Huds. Second pair of leafl. very distant from the first. Gouan.) *angustifo'lium.*
Upr. Wuter Parsnep. Ditches. P. 8. 9. *E. Bot.* 139.

3. S. Leaves pinnate (leaflets dentato-serrated), umbels axillary, sessile (or peduncled, opposite the leaves). *nodiflo'rum.*
Creeping Water Pars. Ditches. P. 8. 9. *Pet.* 26. 3.

4. S. Stem creeping, leaves roundish, toothed, angular. *re'pens.*
—— Moist ground. P. 6. 7. *Jacq. Austr.* 260.

337. Seli'num. *Fruit* ovali-oblong, compressed, flat, striated in the middle. *Involucre* reflected. *Petals* cordate, equal.

1. S. Plant somewhat milky, root single. (Stem solitary, styles diverging after flowering; petals involute.) *palus'tre.*
Marsh Milkweed. Wet moors. P. 6. 7. *E. B.* 229.

340. Crith'mum. *Fruit* oval, compressed. *Florets* equal.

marit'imum. 1. C. Leaflets lanceolate, fleshy.
Rock Samphire. Sea coast. P. 8. *Ger.* 533. 1.

346. LIGUS'TICUM. *Fruit* oblong, 5-furrowed on each side. *Cor.* equal, petals involute, entire.

scot'icum. 1. L. Leaves biternate.
Scot. Lovage. Rocksby the sea side. B. 7. *Pet.* 26. 11.

cornubien'se. 2. L. Leaves decompound, incised, root-leaves ternate, lanceolate, very entire.
Cornwall Saxifrage. Bodmin in C. P. 7. *Ray syn.* 8.

347. ANGEL'ICA. *Fruit* roundish, angular, solid. *Styles* reflected. *Cor.* equal, petals bent inwards.

Archangel'ica. 1. A. (Leaves pinnate) the odd one at the end three-lobed.
—— Broadmoor, near Birming. P. 9. *Ger.* 999. 1.

sylves'tris. 2. A. Leaflets equal, ovato-lanceolate, serrated.
Wild Angelica. Meadows. P. 9. *Ger.* 999. 2.

349. SI'SON. *Fruit* ovate, striated. *Invol.* about 4-leaved.

Amo'mum. 1. S. Leaves pinnate, umbels erect.
Bastard Stone Parsley. Woods. P. 8. 9. *Ger.* 1016. 1.

seg'etum. 2. S. Leaves pinnate, (leaflets roundish,) umbels cernuous.
Corn Parsley. Cornfields. A. or B. 7. *E. Bot.* 228.

inunda'tum. 3. S. Creeping, umbels bifid. (Involucre o, leaves under water capillary, those above pinnate.)
Water Stonewort. Ditches, &c. B. 6. *E. Bot.* 227.

verticilla'tum. 4. S. Leaflets verticillate, capillary.
Verticillate Stonewort. Pastures. P. 8. *E. Bot.* 395.

355. ÆTHU'SA. *Involucrets* halved, 3-leaved, pendulous. *Fruit* striated.

Cyna'pium. 1. Æ. Leaves all alike (fruit nearly globular).
Fools Parsley. Cornfields, &c. A. 8. 9. *Curt.*

Me'um. 2. Æ. All the leaves many-parted, the segments setaceous. (Involucre o, rarely 1-leaved.) Athamanta *Meum* Sp. Pl. and Huds.
Com. Spignel. Mount. Meadows. P. 5. *Ger.* 1052. 1.

356. CORIAN'DRUM. *Cor.* radiate. *Pet.* inflexo-emarginate. *Invol.* 1-leaved. *Involucret* halved. *Fruit* spherical.

sati'vum. 1. C. Fruit globular.
Common Coriander. Road sides. A. 6. 7. *E. Bot.* 67.

357. SCAN'DIX. *Cor.* radiate. *Fruit* subulate. *Petals* emarginate. *Florets* of the disk often male.

1. Seeds furrowed, angular. *odora'ta.*
Sweet Cicely. Hedges, &c. A. 5. 6. *Ger.* 1039. 3.

2. S. Seeds with a very long beak. *Pec'ten.*
Com. Shepherd's Needle. Cornfields. A. 6. 7. *Curt.*

3. S. Seeds shining, ovato-subulate (and beaked), umbels lateral, sessile. *Cerefo'lium.*
Chervil Shep. Needle. Hedges. A. 5. *Ger.* 1038. 1.

4. S. Seeds ovate, hispid, corols uniform, stem smooth. See Caucalis *scandicina.* Page 59. *Anthris'cus.*

358. CHÆROPHYL'LUM. *Involucret* reflected, concave. *Pet.* inflexo-cordate. *Fruit* oblong, smooth.

1. C. Stem smooth, striated, joints rather swoln. *sylves'tre.*
Cow-weed Chervil. Hedges. P. 5. 6. *Curt.* 273.

2. C. Stem rough (spotted); joints swoln. (Involucre 0, or 1—4-leaved. Involucret 1-leaved, 6 or 8-cleft. RELHAN.) *tem'ulum.*
Wild Chervil. Hedges, &c. P. 5. 6. *F. Dan.* 918.

353. PHELLAN'DRIUM. *Florets* of the disk smaller. *Fruit* ovate, smooth, crowned with the perianth and pistils.

1. P. Ramifications of the leaves diverging. *aquat'icum.*
Water Hemlock. Ditches. B. 6. 7. *Woodv.* 266.

359. IMPERATO'RIA. *Fruit* roundish, compressed, gibbous in the middle, with a membranous margin. *Pet.* inflected, emarginate.

1. IMPERATORIA. *Ostru'thium.*
Masterwort. Banks of the Clyde. P. 6. *Woodv.* 35

354. CICU'TA. *Fruit* nearly ovate, furrowed.

1. C. Umbels opposite the leaves, petioles marginate, obtuse (stipules running up the petioles. E. BOT.). *viro'sa.*
Water Hemlock. Ponds, &c. P. 7. 8. *F. Dan.* 208.

363. SMYR'NIUM. *Fruit* oblong, striated. *Pet.* acuminate, keeled.

1. S. Stem leaves ternate, petioled, serrated. *Olusa'trum.*
Alexanders. Ditches, &c. B. 5. 6. *E. Bot.* 330.

365. CA'RUM. *Fruit* ovato-oblong, striated. *Involucre* 1- (sometimes 4 or 5) leaved, deciduous. *Pet.* keeled, inflexo-emarginate.

Car'ui. 1. CARUM.
Common Caraway. Meadows. B. 5. 6. *Mart.* 55.

362. PASTINA'CA. *Fruit* elliptical, compressed, flat. *Pet.* involute, entire.

sati'va. 1. P. Leaves simply pinnate. (Leaflets incised, Invol. 4 or 5-leaved, leaflets unequal. PERS.)
Wild Parsnep. Chalky pastures. B. 6. 7. *Mart.* 83. *Ger.* 1025. 1. A Var. with broader leaves.

364. ANE'THUM. *Fruit* nearly ovate, compressed, striated. *Pet.* involute, entire.

Fœnic'ulum. 1. A. Fruit ovate (leaves many-parted, capillary).
Common Fennel. Chalk cliffs. B. 7. 8. *Woodv.* 160.

368. ÆGOPO'DIUM. *Fruit* ovato-oblong, striated (acuminate at each end).

Podagra'ria. 1. Æ. Highest stem leaves ternate. (Lower ones triternate, fruit compressed; styles reflected.)
Herb Gerard. Road sides. P. 5—8. *F. Dan.* 670.

367. A'PIUM. *Fruit* (small) ovate, striated. *Involucre* 1-leaved. *Pet.* equal. (*Styles* reflected.)

grave'olens. 1. A. Stem-leaves cuneiform.
Smallage. Ditches, &c. B. 8. *F. Dan.* 790.

366. PIMPINEL'LA. *Fruit* ovato-oblong (striated). *Pet.* inflected. *Stigm.* nearly globular (*styles* erect).

saxif'raga. 1. P. Leaves pinnate, leaflets of the root-leaves roundish, of the upper ones linear.

Var. 1. All the leaflets ovate, serrated. *Gerard* 887. 1. 2.

—— 2. Leaflets of the root-leaves ovate, serrated, of the lower stem-leaves linear, mostly entire, bractes linear. *Ger.* 1044. 2.

—— 3. Leaflets of the root-leaves ovate, serrated, of the lower stem-leaves deeply pinnatifid, bractes pinnate. *F. Dan.* 669. *E. Bot.* 407.

—— 4. All the leaves bipinnate, leaflets linear, mostly entire, bractes pinnate. RELHAN.

—— 5. *dissecta.* Root-leaves bipinnate, leaflets pinnatifid, segm. entire; stem-leaves bipin-

nate, leaflets entire, bracles bind. *Retz* iii. t. 2. See With. V. 2. P. 211 & 60.

Sm. Burnet Saxifrage. Dry soil. P. 8. 9. *E. B.* 407.

2. P. All the leaves lobed, the odd one 3 lobed. (Leaves pinnate, leaflets nearly ovate, the terminating one 3-lobed. E. Bot.) *mag'na.*

Great Burnet Saxif. Hedges. P. 8. 9. *E. Bot.* 408.

Var. 2. Leaves laciniated. Dill. in Ray syn. 213. *Pet.* 260.

3. P. Dwarfish, umbels very numerous, compound and simple. (Male and herm. flor. on distinct plants. Mur. Flow. dioicous, leaves almost bipinnate, leaflets linear, simple and 3 together. Huds.) *dioi'ca.*

Least Anise. Mount. pastures. P. 5. 6. *Ger.* 1054. 3.

TRIGYNIA.

370. Vibur'num. *Cal.* 5-parted, superior. *Cor.* 5-cleft. *Berry* 1-seeded.

1. V. Leaves cordate, serrated, veined, tomentous underneath. *Lanta'na.*

Way-faring Tree. Hedges, &c. S. 5. *E. Bot.* 331.

2. V. Leaves lobed, petioles glandular. *Op'ulus.*

Guelder Rose. Hedges, &c. S. 5. 6. *E. Bot.* 332.

372. Sambu'cus. *Cal.* 5-parted. *Cor.* 5-cleft. *Berry* 3-seeded.

1. S. Cymes 3-parted, stipules leaf-like, stem herbaceous. *Eb'ulus.*

Dwarf Elder. Hedges. S. 7. *Curtis. E. Bot.* 475.

2. S. Cymes 5-parted, leaves pinnate, leaflets nearly ovate, serrated, stem arboreous. *ni'gra.*

Com. Elder. Damp hedges. S. 4. 5. *E. Bot.* 476.

376. Staphyle'a. *Cal.* 5-parted. *Pet.* 5. *Caps.* inflated, united. *Seeds* 2, globular, with a scar.

1. S. Leaves pinnate. (Styles sometimes 2.) *pinna'ta.*

Bladder Nut Tree. Hedges. S. 6. *Ger.* 1437.

380. Alsi'ne. *Cal.* 5-leaved. *Pet.* 5, equal. *Caps.* 1-celled, 3-valved (or 6-valved. Pers.).

1. A. Petals 2-parted, leaves ovato-cordate. (Stam. 3—7.) Stellaria *media*, With. See Stellaria. *me'dia.*

Chickweed. Very common. A. 3. 10. *Curt.*

378. CORRIGI'OLA. *Cal.* 5-leaved (border membranous, white). *Pet.* 5. *Seed* 1, 3-cornered. (*Nut* roundish, 3-cornered. GAERTN.)

littora'lis. 1. CORRIGIOLA.
Sand Strapwort. Sands. A. 6—9. *F. Dan.* 334.

375. TAM'ARIX. *Cal.* 5-parted. *Pet.* 5. *Caps.* 1-celled, 3-valved. *Seeds* pappous.

gal'lica. 1. T. Flowers with 5 stamens (in long slender spikes).
—— Western coast. S. 7. *Mill.* pl. 262. 1.

TETRAGYNIA.

384. PARNAS'SIA. *Cal.* 5-parted. *Pet.* 5. *Nect.* 5, cordate, ciliate, ciliæ terminated by little globes. *Caps.* 4-valved.

palus'tris. 1. PARNASSIA.
Grass of Parnassus. Moist pl. P. 8. *E. Bot.* 82.

PENTAGYNIA.

388. STAT'ICE. *Cal.* 1-leaved, entire, plaited, scariose. *Pet.* 5. *Seed* 1, superior.

arme'ria. 1. S. Scape simple, capitate, leaves linear. (Calyx-scales roundish, obtuse. AITON.)
Common Thrift. Sea coast. P. 5. 6. *E. Bot.* 226.

Limo'nium. 2. S. Scape panicled, cylindrical, leaves, smooth, nerveless, mucronate.
Lavender Thrift. Sea coast. P. 7. 9. *E. Bot.* 102.

reticula'ta. 3. S. Scape panicled, prostrate, barren branches retroflected, naked, leaves cuneiform, awnless.
Matted Thrift. Norfolk coast. P. 7. 8. *E. Bot.* 328.

389. LI'NUM. *Cal.* 5-leaved. *Pet.* 5. *Caps.* 5-(10-) valved, 10-celled. *Seeds* solitary.

1. *Leaves alternate.*

usitatis'simum. 1. L. Calyxes and capsules mucronate, petals crenate, leaves lanceolate, stem generally solitary.
Common Flax. Cornfields. A. 7. *Martin* 133.

peren'ne. 2. L. Cal. and caps. obtuse, leaves lanceolate (alternate) entire.
Perennial Flax. Chalky soil. P. 6. 7. *E. Bot.* 40.

3. L. Calyxes acuminate, leaves scattered, linear-setaceous, rough downwards. *tenuifo'lium.*
Narrow-leav. Flax. Mead. P. 6. 7. *Jacq. Aus.* 215.

4. L. Cal. (indistinctly 3-nerved) and caps. acuminate; leaves linear-lanceolate, (3-nerved) acuminate; stem branched at the base, a little declined. Hups. E. Bot. L. *tenuifolium* γ. *Lin.* var. 2. *With.* *angustifo'lium.*
—— Dry sandy pastures. P. 6. 7. *E. Bot.* 381.

2. *Leaves opposite.*

5. L. Leaves opposite, ovato-lanceolate, stem dichotomous, corols (petals) acute. (Flowers before opening pendulous.) *cathar'ticum.*
Purging Flax. Dry pastures, A. 5—7. *Mart.* 135.

6. L. Leaves opposite, stem dichotomous, flowers tetrandrous, tetragynous. Radiola *linoides* Roth. Fl. germ. p. 91. *Radi'ola.*
All-seed Flax. Sandy heaths. A. 8. *F. Dan.* 178.

391. DRO'SERA. *Cal.* 5-cleft. *Pet.* 5. *Caps.* 1-celled, 5-valved at the apex. *Seeds* numerous.

Obs. This genus has been removed by Hudson to the Order Hexagynia, and, as far as relates to the British species, with propriety; for in no one instance have I found 5 pist.: the prevailing number is 6, and we not unfrequently find 8. It has not occurred to me to observe 8 pist. more frequently in D. *anglica*, than in *longifolia*, but rather the contrary; and I have never met with 8 in D. *rotundifolia*. When the number of pist. is 6, they always go off in 3 pairs, each pair being united at the base; when 8, in 4 pairs; and the number of valves corresponds with the the number of pairs of pist., being 3 when the pist. are 6, 4 when they are 8, never 5, as is stated by L.in. in the character given above. What I have here asserted is to be understood only of the British plants.

1. D. Scapes from the root (straight), leaves orbicular (petioles hairy). *rotun'difo'lia.*
Round-leaved Sundew. Bogs. P. 7. 8. *Ger.* 1556. 1.
Var. 2. Scape branched. *Ger.* 1556. 1. right hand f.

2. D. Scapes from the root (curved at the base, passing off horizontally and becoming suddenly erect), leaves ovali-oblong. (Caps. obconical.) *longifo'lia.*
Long-leaved Sundew. Bogs. P. 7. 8. *Ger.* 1556. 2.
Var. 2. Scape branched.
—— 3. Caulescent. *H. ox.* xv. 4. row 1. fig. last but one, only the scape is too straight.

Obs. This is in every respect like var. 1., except that there is a stem, which in some instances is full two inches in length, with numerous leaves. I have always found it growing among Sphagnum palustre, in moist bogs on heaths, and at first thought that the plant pushed up to a greater height, on account of the moss growing quickly around it, and that this appearance of stem was rather to be considered as an elongation of the root; but I have doubted of this since I have found the stem leafy, and that the other two species of Drosera, though growing exactly in the same situation, and within a few inches of the *longifolia*, do not assume this caulescent form.

angl'ica. 3. D. Scapes from the root, straight; leaves oblongo-cuneiform; caps. oblong.

Great Sundew. Moist bogs. P. 7. 8. *H. ox.* xv. 4. 1.

Obs. Ray has given 5 species of Drosera, two of which are annual, and three from Willisell, which are perennial; but as his *annual* rotundifolia and longifolia differ in no other respect than their duration from his *perennial* rotundifolia and longifolia, and it is very doubtful whether any of the species are annual, we have reason to believe that they only constitute two species. See Ray's Synops. 356. and Hist. 1100. H. ox. iii. 620.

393. SIBBAL'DIA. *Cal.* 10-cleft. *Pet.* 5, inserted in the calyx. *Styles* from the side of the germen. *Seeds* 5.

procum'bens. 1. S. Leaflets 3-toothed.

Procumbent Silver-weed. Mount. P. 7. 8. *E. Dan.* 32.

POLYGYNIA.

394. MYOSU'RUS. *Cal.* 5-leaved, leaves united at the base. *Nect.* 5. subulate, (tubular) petaliform. *Seeds* numerous. (*Recept.* very long.)

min'ima. 1. MYOSURUS.

Little Mouse-tail. Cornfields. A. 5. 6. *Curt.* 251.

CLASS VI.

HEXANDRIA.

MONOGYNIA.

1. *Fl. furnished with calyx and corol.*

442. BER'BERIS. *Cor.* 6-petalled. *Cal.* 6-leaved, inferior. *Berry* 2-seeded.

445. FRANKE'NIA. *Cor.* 5-petalled. *Cal.* 1-leaved, inferior. *Caps.* 1-celled, many-seeded.

(V. *Hottonia palustris.* VI. *Anthericum calyculatum.* XII. *Lythrum hyssopifolium.* *Peplis Portula.*)

2. *Fl. with a Spathe or Glume.*

402. LEUCO'JUM. *Cor.* superior, 6-petalled, campanulate. *Stamens* equal.

401. GALAN'THUS. *Cor.* superior, 6-petalled, 3 inner petals shorter, emarginate.

403. NARCIS'SUS. *Cor.* superior, 6-petalled. *Nectary* campanulate, on the outside of the stamens.

409. AL'LIUM. *Cor.* inferior, 6-petalled. *Pet.* ovate, sessile.

3. *Fl. naked.* (Without calyx.)

425. CONVALLA'RIA. *Cor.* inferior, 6-cleft. *Berry* 3-seeded.

427. HYACIN'THUS. *Cor.* inferior, 6-cleft. *Germen* with 3 melliferous pores at the top.

422. ANTHE'RICUM. *Cor.* inferior, 6-petalled, flat.

—— NARTHE'CIUM. *Cor.* inferior, 6-petalled. *Style* 0. *Seeds* tailed at each end.

418. ORNITHOG'ALUM. *Cor.* inferior, 6-petalled. *Filam.* alternately broader at the base.

419. Scil'la. *Cor.* inferior, 6-petalled, deciduous. *Filam.* filiform.

424. Asparagus. *Cor.* inferior, 6-petalled. *Berry* 6-seeded.

411. Fritilla'ria. *Cor.* inferior, 6-petalled, with a nectariferous hollow at the base, ovate.

415. Tu'lipa. *Cor.* inferior, 6-petalled, campanulate. *Style* 0.

(VI. *Juncus.* VIII. *Polygonum Hydropiper.*)

4. *Fl. incomplete.* (Without petals.)

434. Ac'orus. *Spadix* many-flowered. *Caps.* 3-celled.

437. Jun'cus. *Cal.* 6-leaved. *Caps.* 1-celled.

446. Pep'lis. *Cal.* 12-cleft. *Caps.* 2-celled.

DIGYNIA.

(VI. *Rumex Digynus.* VIII. *Polygonum persicaria et Hydropiper.* XI. *Agrimonia Eupatoria.* X. *Scleranthus annuus.* XXI. *Quercus.*)

TRIGYNIA.

1. *Flowers inferior.*

457. Col'chicum. *Cal.* a spathe. *Cor.* 6-petaloid.

453. Tric'lochin. *Cal.* 3-leaved. *Cor.* 3-petalled. *Caps.* opening at the base.

451. Ru'mex. *Cal.* 3-leaved. *Cor.* 3-petalled. *Seed* 1, 3-cornered.

—— Tofiel'dia. *Cal.* 0. *Cor.* 6-petalled. *Caps.* 3-celled, 6-valved.

(VI. *Anthericum caliculatum.* VIII. *Polygonum viviparum.* XXI. *Quercus.*)

HEXAGYNIA.

(*Alisma Damasonium.* XX. *Aristolochia.*)

POLYGYNIA.

460. ALIS'MA. *Cal.* 3-leaved. *Cor.* 3-petalled. *Pericarps* several.
(Triglochin maritimum.)

MONOGYNIA.

442. BER'BERIS. *Cal.* 6-leaved. *Pet.* 6, 2 glands on their claws. *Style* 0. *Berry* 2- (or 3) seeded.

1. B. Peduncles racemous, thorns 3-fold. *vulga'ris.*
Com. Barberry. Hedges, &c. S. 5. 6. *E. Bot.* 49.

445. FRANKE'NIA. *Cal.* 5-cleft, funnel-shaped. *Pet.* 5. *Stigma* 6-parted. (*Stigmas* 3.) *Caps.* 1-celled, 3-valved.

1. F. Leaves linear, crowded, ciliate at the base. *læ'vis.*
Smooth Sea-heath. Salt marsh. P. 7. 8. *E. Bot.* 205.

402. LEUCO'JUM. *Cor.* campaniform, 6-parted, (segm.) thickened at the points. *Stigma* simple.

1. L. Spathe many-flowered, style club-shaped. *æst'ivum.*
— Side of the Thames. P. 5. *Curt. Ger.* 148. 4.

401. GALAN'THUS. *Pet.* 3, concave. *Nect.* 3 smaller petals, emarginate. *Stigma* simple.

1. GALANTHUS. *niva'lis.*
Snow-drop. Meadows, &c. P. 2. 3. *E. Bot.* 19.

403. NARCIS'SUS. *Pet.* 6, equal. *Nect.* (mostly) funnel-shaped, 1-leaved. *Stam.* within the nectary.

1. N. Spathe 1-flowered, nectary rotate, very short, scariose, slightly crenate. (Leaves obtusely keeled, with a reflected margin. E. BOT.) *poet'icus ?*
Poetic Narcis. Sandy heaths. P. 5. *E. Bot.* 275.

2. N. Spathe 2-flowered, nect. rotate, very short, scariose, (finely) crenate, leaves acutely keeled, with an inflected margin. E. BOT. CURT. Bot. Mag. 197. N. *poeticus.* Huds. *bifio'rus.*
Pale Daffodil. Meadows, &c. P. 5. *E. Bot.* 276.

Pseudo-Narcis'sus. 3. N. Spathe 1-flowered, nect. campanulate, erect, curled, as long as the ovate petals.
Com. Daffodil. Woods, &c. P. 3. 4. *E. Bot.* 17.

409. AL'LIUM. *Cor.* 6-parted, (6-petalled) spreading. *Spathe* many-flowered. *Umbel* dense. *Caps.* superior.

1. *Stem-leaves flat. Umbel capsule-bearing.*

Ampelo-pra'sum. 1. A. Umbel globulary, stamens 3-pointed, petals rough on the keel.
Round-head. Garlic. Isle of Holmes. P. 7. *Ger.* 180. 2.

2. *Stem-leaves flat. Umbel bulb-bearing.*

arena'rium. 2. A. Sheaths cylindrical, spathe pointless, stamens 3-pointed.
Sand Garlic. Mountains, &c. P. 6. 7. *Ger.* 187. 4.

carina'tum. 3. A. Stamens subulate. (Spathe very long, leaves linear, channelled, sheathing. Leaflets of the spathe two very long, one shorter. PERS.)
Mountain Garlic. Rocks, &c. P. 6. 7. *Ger.* 187. 5.

3. *Stem-leaves cylindrical. Umbel bulb-bearing.*

vinea'le. 4. A. Stam. 3-pointed.
Crow Garlic. Meadows, &c. P. 6. *Ger.* 179. 1.

olera'ceum. 5. A. Leaves (not always) rough, semi-columnar (fistulous), furrowed underneath, stam. simple.
Wild Garlic. Meadows, &c. P. 7. *Ger.* 188. 6.

4. *Leaves from the Root. Scape naked.*

ursi'num. 6. A. Scapes triangular, leaves lanceolate, petioled, umbel fastigiate.
Ramsons. Woods, &c. P. 5. *E. Bot.* 122.

Schœno-pra'sum. 7. A. Scape naked, as long as the leaves, leaves cylindrical, subulato-filiform.
Chived Garlic. Pastures, &c. P. 6. *F. Dan.* 971.

425. CONVALLA'RIA. *Cor.* 6-cleft. *Berry* spotted, 3-celled.

1. *Corols campanulate.*

maja'lis. 1. C. Scape naked (semi-cylindrical, flowers spiked, nodding. WITH.)
Lily of the Valley. Woods, &c. P. 5. *Curt.* 302.

2. *Corols funnel-shaped.*

verticilla'ta. 2. C. Leaves verticillate.

Narrow-leaved Solomon's S. Perths. P. 7. *E. B.* 280.

3. C. Leaves alternate, embracing the stem, stem 2-edged (angular); peduncles axillary, mostly 1-flowered. *Polygona'tum.*
Sweet-smelling Sol. Seal. Rocks. P. 5. 6. *E. Bot.* 280.

4. C. Leaves alternate, embracing the stem, stem cylindrical, peduncles axillary, many-flowered. *multiflo'ra.*
Com. Solomon's S. Woods. P. 5. 6. *E. Bot.* 279.

427. HYACIN'THUS. *Cor.* campanulate. *Germen* with 3 nectariferous pores at the top. (*Cor.* 6-parted, segm. revolute. WITH.)

1. H. Corols campanulate, 6-parted, the points revolute. See Scilla *nutans.* Page 74. *non-scrip'tus.*
Harebell Hyacinth. Woods, &c. P. 5. *Curt.* 139.

422. ANTHER'ICUM. *Cor.* 6-petalled, spreading. *Caps.* ovate.

1. A. Leaves flattish, scape 1 (—4) -flowered. (Upper bractes decurrent, inflected.) *seroti'num.*
Mountain Saffron. Mountains. P. 6. *Ray* 17. 1.

2. A. Leaves ensiform, filaments woolly. See Narthecium *ossifragum.* *ossif'ragum.*

3. A. Leaves ensiform, perianth 3-lobed, filam. smooth, flow. trigynous. See Tofieldia *palustris.* Page 78. *calycula'tum.*

—— NARTHE'CIUM. *Cor.* 6-petalled, permanent. *Style* 0. *Caps.* ovate. *Seeds* acuminate at both ends. WITH.

1. NARTHECIUM. See Hudson. *ossif'ragum.*
Lancashire Asphodel. Bogs. P. 7. 8. *F. Dan.* 42.

418. ORNITHOG'ALUM. *Cor.* 6-petalled, erect, permanent, above the middle spreading. *Filaments* every other dilated at the base.

1. *All the stamens subulate.*

1. O. Scape angular, 2-leaved, peduncles umbellate, simple. *lu'teum.*
Yellow Bethlem-Star. Sandy pl. P. 3. 4. *E. Bot.* 21.

2. O. Raceme very long, filam. lanceolate, peduncles, when in flower, spreading, equal; when in fruit, approaching the scape. *pyrena'icum.*
Spiked Beth.-Star. Meadows, &c. P. 6. *Ger.* 97.

2. *The alternate stamens emarginate.*

umbella'tum. 3. O. Flowers corymbous, pedunc. higher than the scape. (Outer pedunc. taller than the central ones. With.)
Com. Bethlem-Star. Woods, &c. P. 4. 5. *E. Bot.* 130.

419. Scil'la. *Cor.* 6-petalled, spreading, deciduous. *Filam.* filiform.

autumna'lis. 1. S. Leaves linear, flowers corymbous, pedunc. naked, ascending, as long as the flower.
Autumnal Squill. Dry pastures. P. 8. 9. *E. Bot.* 78.

bifo'lia? 2. S. Fl. somewhat erect, few. (Root solid, flow. nearly erect, bracteless; leaves lanceolate, generally 2. E. Bot.
Two-leaved Squill. P. *Buddle's Herbar. E. Bot.* 24.

ver'na. 3. S. Corymb hemispherical, few-flowered, bracteate (bractes lanceolate, obtuse); leaves subulato-linear, channelled. Huds. With. E. Bot. S. *bifolia.* Lightf.
Vernal S. Rocks on the coast of Wales. P. 4. *E. B.* 23.

nu'tans. 4. S. Root solid, spike nodding, flow. pendent, campanulate, somewhat cylindrical, petals reflected at the points, bractes in pairs, acute; leaves flaccid. E. Bot. Hyacinthus *non scriptus.* Lin. &c. See Page 73.

424. Aspar'agus. *Cor.* 6-parted, (6-petalled) erect, 3 inner petals reflected at the top. *Berry* 3-celled, 2-seeded.

officina'lis. 1. A. Stem herbaceous, cylindrical, (nearly) erect, leaves setaceous, stipules (solitary, or) in pairs. (Flow. polygamous Huds.; dioicous both in its natural and cultivated state. Leers.)
Com. Asparagus. Sea coast. P. 7. *E. Bot.* 339.

411. Fritilla'ria. *Cor.* 6-petalled, campanulate, with a nectariferous cavity above each claw. *Stam.* as long as the corol. (*Stigma* 3-cleft. *Caps.* 3-celled.)

melea'gris. 1. F. All the leaves alternate, stem 1- (or 2) flowered.
Fritillary. Meadows, &c. P. 4. 5. *Curt.* 218.

415. Tu'lipa. *Cor.* 6-petalled, campanulate. *Style* 0. (*Caps.* 3-celled.)

silves'tris. 1. T. Flower somewhat nodding, leaves lanceolate.
Wild Tulip. Chalk pits in Suffolk. P. 4. *E. Bot.* 63.

434. Ac'orus. *Spadix* cylindrical, covered with florets. *Cor.* 6-petalled, naked. *Style* 0. *Caps.* 3-celled.

1. Acorus. *cal'amus.*
Sweet Flag. River-banks. P. 5—7. *E. Bot.* 356.

437. Jun'cus. *Cal.* 6-leaved. *Cor.* 0. *Caps.* 1-(or 3) celled.

1. *Culms naked.*

1. J. Leaves and flowers 3 (1—4), terminating. *trif'idus.*
Trifid Rush. Highl. Mount. P. 6. *Lightf.* 9. 1.
2. J. Culm stiff and straight, head lateral. (Florets ovate, obtuse, triandrous.) *conglomera'tus.*
Round-head. Rush. Meadows. P. 7. 8. *Leers* 13. 1.
3. J. Culm stiff and straight, panicle lateral (florets triandrous). *effu'sus.*
Com. Rush. Wet meadows. P. 6—8. *Leers* 13. 2.
4. J. Culm (stiff, striated, glaucous) crooked, membranous at the point, panicle lateral. J. *effusus* β. Huds. *inflex'us.*
Hard Rush. Pastures, &c. P. 7. *Leers* 13. 3.
5. J. Culm filiform, nodding, panicle lateral (few-flowered). *filifor'mis.*
— Turfy bogs on mountains. P. 8. *Leers* 13. 4.
6. J. Leaves setaceous (rigid, spreading), heads glomerate, leafless. *squarro'sus.*
Moss Rush. Turfy bogs. P. 6. 7. *F. Dan.* 430.
7. J. Culm nearly naked, cylindrical, mucronate, panicle terminating, involucre two-leaved, thorny. *acu'tus.*
Pricking Large Sea R. Sea c. P. 7. 8. *Park.* 1193. 4.
Var. 2. Pan. not spreading, 3—6 inch. long, branches 2 principal, one 3—6 inch. long, the other short, branched. See With. vol. ii. p. 347.
Sea Hard Rush. Marshes. P. 7. 8. *Park.* 1193. 7.

2. *Culms leafy.* (J. *squarrosus.*)

8. Leaves with knotlike joints (partitioned transversely), petals obtuse. *articula'tus.*
Var. 1. *aquaticus* α. Lin. J. *Compressus.* Relh. and Sibth. Leaves compressed. *Ger.* 22. 9.
—— 2. *sylvaticus* β. Lin. J. *nemorosus.* Sibth. Leaves cylindrical. *E. Bot.* 238.
—— 3. *uliginosus.* Sibth. Leaves setaceous, caps. smaller. *H. ox.* viii. 9. 2. 3.
Jointed Rush. Var. 1. 2. Wet woods, &c. Var. 3. Wet sandy commons. P. 6—8.

uligino'sus. 9. J. Culms procumbent, proliferous from the head of flowers, leaves setaceous, somewhat knotted (transversely partitioned). WITH: GMELIN.

Obs. The partitions of the leaves, according to With., are in some specimens just observable, in others not at all; the former he has always considered as a var. of J. *articulatus*, the latter was supposed to be a viviparous var. of J. *bulbosus*. See vol. ii. p. 348. *F. Dan.* 817. *H. ox.* viii. 9. 4.

bulbo'sus. 10. J. Leaves linear, channelled, caps. obtuse. (Culm rather compressed, undivided, panicle terminating, shorter than the bracte.)

Bulbous Rush. Wet heaths. P. 7. 8. *F. Dan.* 431.

bufo'nius. 11. J. Culm dichotomous, leaves angular, flowers solitary, sessile. (Calyx-leaves lanceolate, acuminate, caps. ovate, shorter than the calyx. WITH.)

Toad Rush. Wet sandy past. P. 5—8. *Leers* 13. 8.

biglu'mis. 12. J. Leaf subulate, glume 2-flowered, terminating. (Outer leaf of the glume much larger, with a long point.)

Two-flowered Rush. Bogs on M. P. 8. *F. Dan.* 120.

triglu'mis. 13. J. Leaves flat, glume 3 (2—4) -flowered, terminating.

Three-fl. R. Bogs on Mount. P. 6. 8. *Lightf.* 9. 2.

pilo'sus. 14. J. Leaves flat, hairy, corymb branching. (Fl. solitary. HUDS.)

Hairy Rush. Woods. P. 4. 5. *Curt.* 345.

max'imus. 15. J. Leaves flat, hairy, panicle terminating, very much branched, flowers 1, 2, or 3 together. WITH. J. *sylvaticus.* Huds. Curt.

Wood Rush. Woods, &c. P. 5. 6. *Curt.* 344.

campes'tris. 16. J. Leaves flat, somewhat hairy, spikes sessile, and peduncled.

Field Rush. Pastures, &c. P. 4. 5. *Curt.* 140.

Var. 2. Panicle larger, more compact, spikes globular, straw and leaves as long again. RAY. 416. 2.

A distinct species? Turfy bogs. P. 6. *Gerard* 16. 1.

spica'tus. 17. J. Leaves flat, spike racemous, nodding.

Spiked Rush. Highl. Mount. P. 7. 8. *F. Dan.* 270.

Jacqui'ni. 18. J. Leaf subulate, head terminating, about 4-flowered. See Symons.

—— Scotland. DICKSON. *Jacq. Austr.* 221.

446. PEP'LIS. *Perianth* campanulate, mouth 12-cleft. *Petals* fixed to the calyx. *Caps.* 2-celled.

por'tula. 1. P. Flowers apetalous. (Pet. very minute, deciduous.)

—— Watery places. A. 7—9. *Curt.* 288.

TRIGYNIA.

457. COL'CHICUM. A *Spathe*. *Cor*. 6-parted, tube from the root. *Caps*. 3, connected, inflated.

1. C. Leaves flat, lanceolate, erect. *autumna'le.*
Meadow Saffron. Meadows. P. 8. 9. *Mart*. 60.

453. TRIG'LOCHIN. *Cal*. 3-leaved. *Pet*. 3, like the calyx. *Style* 0. *Caps*. opening at the base.

1. T. Capsules 3-celled, nearly linear. *palus'tre.*
Arrow-headed Grass. Mead. P. 7. 8. *E. Bot*. 366.
2. T. Capsules 6-celled, ovate. *marit'i-*
Sea Arrow Gr. Salt marshes. P. 7. 8. *E. Bot*. 255. *mum.*

451. RU'MEX. *Cal*. 3-leaved. *Pet*. 3, converging. *Seed* 1, triangular (inclosed in the corol).

Obs. Lin. has only given 3 divisions of this genus, viz.
1. Hermaphrodite, valves marked with a granule. *Sanguineus, crispus, acutus, maritimus, obtusifolius, pulcher.*
2. Hermaph., valves without a granule. *Digynus.*
3. Flowers dioicous. *Acetosa, Acetoselia.*
The distribution here employed is from Withering.

1. *Hermaph., petals entire, only* 1*-beaded.*

1. R. Valves very entire, leaves cordato-lanceolate. *sanguin'e-*
(Leaves with red veins.) *us.*
Small-grained Dock Bloodwort. B. 7. *Pet*. 2. 5.

2. *Hermaph. petals entire, all of them beaded.*

2. R. Leaves lanceolate, undulated, acute. (Valves strongly veined. WITH.) *cris'pus.*
Curled Dock. Road sides, &c. P. 6. 7. *Curt*. 104.
3. R. Valves toothed, leaves cordato-oblong, acuminate. (Valves veinless (not toothed); leaves ovali-lanceolate, uneven at the edges. WITH.) *acu'tus.*
—— Woods, &c. P. 6. 7. *Curt*. 181.
4. R. Leaves cordato-lanceolate, rather acute; flow. in distinct verticils. HUDS. (Vertic. beneath the bracte. WITH.) *paludo'sus.*
Marsh Dock. Marshes. P. 8. *Munt*. 194.
Is it a var. of R. *acutus?* See With.
5. R. Leaves lanceolate, acute. HUDS. (Smooth very entire, tapering at the base. WITH.) *Hydrola-p'athum.*
Water Dock. Wet ditches. P. 7. 8. *Pet*. 2. 1.

Obs. With. suspects that this plant and R. *aquaticus* Lin. are the same, notwithstanding that it is characterized as being without beads, and the leaves cordate; for in Hydrolap. the beads are not very obvious in the flowering state, though they become conspicuous when the seed is ripe.

3. *Flow. Hermaph., petals toothed, only 1-beaded.*

pul'cher. 6. R. Root-leaves panduriform.
Fiddle Dock. Rubbish. P. 7. 8. *H. ox.* v. 27. 13.

4. *Hermaph., petals toothed, all beaded.*

marit'imus. 7. R. Leaves linear (fl. in distant verticils. W.).
—— Road sides. P. 7. 9. *Curt.* 163.

au'reus. 8. R. Leaves linear, verticils crowded, spike-like.
With. R. *maritimus* β. Huds.
Golden Dock. Marshes. P. 7. 8. *Pet.* 2. 8.

obtusifo'luis. 9. R. Leaves cordato-oblong, rather obtuse, finely crenate.
Broad-leaved Dock. Rubbish. P. 7. 8. *Curt.* 168.

5. *Hermaph., petals without beads.*

dig'ynus. 10. R. Flowers digynous.
Mountain Dock. Mountains. P. 5—7. *F. Dan.* 14.

6. *Flowers dioicous.*

Aceto'sa. 11. R. Leaves oblong, sagittate.
Com. Sorrell. Meadows, &c. P. 6. *E. Bot.* 127.

Acetosell'a. 12. R. Leaves lanceolato-hastate.
Sheep's-Sorrell. Sandy pastures. P. 5. 6. *Ger.* 397. 3.

—— Tofiel'dia. *Cal.* 0. *Cor.* 6-petalled. *Caps.* 3-celled, 6-valved. With. See Hudson.

palus'tris. 1. Tofieldia. Huds. With. Anthericum *calyculatum.* Lin. See page 73.
Scotch Asphodel. Bogs on Mount. P. 7—9. *Ger.* 96.

POLYGYNIA.

460. Alis'ma. *Cal.* 3-leaved. *Pet.* 3. *Seeds* many.

Planta'go. 1. A. Leaves ovate, acute, fruit obtusely 3-cornered.
Water Plantain. Ditches, &c. P. 7. 8. *Curt.* 318.
Var. 2. Fine-leaved. Dill. in Ray syn. 258. γ. Huds.

2. A. Leaves cordato-oblong. Pist. 6. Caps. subulate. *Damaso'nium.*
Star-headed Thrumwort. Ditches. P. 6. 8. *Curt.*

3. A. Leaves ovate, obtuse, pedunc. solitary. *na'tans.*
(Leaves gramineous and ovate, stem creeping, umbel few-flowered. ZINN. fl. gœt. 112. Caps. generally 8. Flow. several from the spathe. Lin. Submersed leaves linear, floating, ovate. HUDS.)
Creeping Th. Lakes. P. 7. *Vail. Mem.* 29. t. 4. f. 8.

4. A. Leaves lineari-lanceolate, fruit globular, squarrose. *ranunculoi'des.*
Less Th. Turfy bogs, &c. P. 6—9. *E. Bot.* 326.

5. A. Leaves lanceolate, fruit 3-cornered. A. *lanceola'ta.*
plantago β. Huds.
—— Ditches, &c. *Gerard.* 337. 2.

CLASS VII.

HEPTANDRIA.

MONOGYNIA.

461. TRIENTA'LIS. *Cal.* 7-leaved. *Cor.* 7-parted, (segm.) equal, flat. *Berry* 1-celled, dry.

europæ'a. 1. T. Leaves lanceolate, very entire.
Chickweed Winter Green. Woods in Yorksh. &c. P. 5—7. *E. Bot.* 15.

Obs. 1. The specific char. of Trientalis is now superfluous, this being the only known species, since the T. *capensis* Sp. Pl. ed. 1. has been made a separate genus by the name of Septas.

Obs. 2. The number of the stam. is very inconstant. See E. Bot. P. 15.

CLASS VIII.

OCTANDRIA.

MONOGYNIA.

1. *Flowers complete.*

471. EPILO'BIUM. *Cor.* 4-petalled. *Cal.* 4-leaved (4-parted), superior. *Caps.* 4-celled. *Seeds* pappous.

483. VACCIN'IUM. *Cor.* 1-petalled. *Cal.* 4-toothed, superior. *Filam.* on the receptacle (*Anthers* awned in the middle). A *Berry.*

1258. CHLO'RA. *Cor.* 8-cleft. *Cal.* 8-leaved, inferior. *Caps.* 1-celled, 2-valved, many-seeded.

484. ERI'CA. *Cor.* 1-petalled. *Cal.* 4-leaved, inferior. *Filam.* on the receptacle. A *Capsule.*

(X. *Andromeda Daboecia. Monotropa Hypopithys.* XXII. *Populus.* XXIII. *Acer.*)

2. *Flowers incomplete.*

485. DAPH'NE. *Cal.* 4-cleft, corol-like, equal. *Stam.* inclosed. *Berry* pulpy.

(XXII. *Salix pentandra.*)

DIGYNIA.

(VIII. *Chlora perfoliata. Polygonum pensylvanicum. Chrysosplenium.* X. *Scleranthus.* XXI. *Quercus. Corylus.*)

TRIGYNIA.

495. POLYG'ONUM. *Cor.* 0. *Cal.* 5-parted. *Seed* 1, naked.

(XXI. *Quercus.*)

TETRAGYNIA.

500. PAR'IS. *Cor.* 4-petalled, subulate. *Cal.* 4-leaved. *Berry* 4-celled.

501. ADOX'A. *Cor.* 4 or 5-cleft, superior. *Cal.* 2-leaved. *Berry* 4 or 5-seeded.

502. ELAT'INE. *Cor.* 4-petalled. *Cal.* 4-leaved. *Caps.* 4-celled.

(XXI. *Myriophyllum. Quercus.* XXII. *Rhodiola.*)

MONOGYNIA.

471. EPILO'BIUM. *Cal.* 4-cleft. *Petals* 4. *Caps.* oblong (very long), inferior. *Seeds* pappous.

1. *Stamens declined.*

angustifo'lium. 1. E. Leaves scattered, lineari-lanceolate, flowers unequal.
Rosebay Willow-herb. Hedges. P. 6—8. *Curt.* 106.

2. *Stamens erect, regular, petals bifid.*

hirsu'tum. 2. E. Leaves opposite, lanceolate, serrated, decurrent, and embracing the stem. (Leaves ovato-lanceolate, hairy. Stem very much branched, hairy. WITH.) E. *ramosum.* Huds.
Large-flow. Willow-herb. Hedges. P. 7. *Curt.* 117.

parvifio'rum. 3. E. Leaves lanceolate, pubescent, nearly sessile, stem hairy, unbranched. WITH. E. *hirsutum* β. Lin. E. *hirsutum.* Huds. E. *villosum.* CURT.
Woolly Willow-herb. Sides of ditches. P. 7. 8. *Curt.*

monta'num. 4. E. Leaves opposite, ovate, toothed. (Upper ones alternate, stem cylindrical).
Smooth-leaved Willow-herb. Woods. P. 7. *Curt.* 195.
Var. 2. Leaves 3, and 4 at a joint.

tetrago'num. 5. E. Leaves lanceolate, finely toothed, the lowest opposite; stem 4-cornered. (Stigma very entire. WILLICH. Obs. 69.)
Square-stalked W. Marshes. P. 7. *Curt.* 131.

6. E. Leaves opposite, lanceolate, very entire, petals emarginate, stem erect. *palus'tre.*
Marsh Willow-herb. Bogs, &c. P. 7. *E. Bot.* 346.

7. E. Leaves opposite, ovato-lanceolate, very entire, siliques (capsules) sessile, stem creeping (about 3-flowered). *alpi'num.*
Alpine Wil. Alpine rivulets. P. 8. *F. Dan.* 322.

8. E. Leaves (lower) opposite, or (upper mostly) alternate, ovato-lanceolate, petioled, serrated, smooth. SCHREBER. (Stigma undivided, club-shaped. S.) *ro'seum.*
—— Lambeth Marsh. CURTIS. Near Ongar. FORSTER. See Symons. P. 199.

483. VACCIN'IUM. *Cal.* superior. *Cor.* 1 petalled. *Fil.* inserted in the receptacle. *Berry* 4-celled, many-seeded.

1. *Leaves annual, or deciduous.*

1. V. Peduncles 1-flowered, leaves serrated, ovate, stem angular. (Berry generally 5-celled, stamens 10, inserted in the germen. SCHKUHR.) *Myrtil'lus.*
Bilberry. Heaths, &c. S. 4—5. *E. Bot.* 456.

2. V. Peduncles 1-flowered; leaves very entire, obovate, obtuse, smooth (ciliate at the base when young, highest leaves sometimes of a pleasant red. PERS.): *uligino'sum.*
Great Bil. Woods. S. 4.5. *F. D.* 231. *Ger.* 1416.6.

2. *Leaves evergreen.*

3. V. Racemes terminating, nodding, leaves obovate, revolute, very entire, dotted underneath. *Vi'tis idæ'a.*
Red Whortle-berries. Heaths. S. 4. 5. *F. Dan.* 40.

4. V. Leaves very entire, ovate, revolute, stems creeping, filiform, naked. *Oxycoc'cos.*
Cranberry. Peaty bogs. S. 5—6. *E. Bot.* 319.

Obs. It is referred to the genus *Scollera* by Roth on account of the corols being 4-petalled, revolute, the filaments converging, and the anthers tubular, 2-parted.

1258. CHLO'RA. *Cal.* 8-leaved. *Cor.* 1-petalled (6 or) 8-cleft. *Caps.* 1-celled, 2-valved, many-seeded. (*Stigma* 4-cleft. E. BOT.)

1. C. Leaves perfoliate. *perfolia'ta.*
Perforated Yellow-wort. Marly g. A.6—9. *E. B.* 60.

484. Er'ica. *Cal.* 4-leaved. *Cor.* 4-cleft. *Filam.* fixed on the receptacle. *Anth.* bifid (and perforated at the top). *Caps.* 4-celled.

Obs. In the Syst. Veget. the British species of Erica are divided in the following manner, viz.

1. *Anthers awned.* A. *Leaves compound.* Vulgaris. B. *Leaves 4 together.* Tetralix.
2. *Anthers crested, leaves 3 together.* Cinerea.
3. *Anthers awnless, projecting; leaves 4, or more together.* Vagans.

The arrangement followed here is from Withering.

1. *Anthers simple, awnless; leaves alternate.*

Daboe'cii. 1. E. Leaves tomentous underneath. Lin. Sp. Huds. E. Bot. E. *Daboecia.* With. Andromeda *Daboecia.* Lin. Syst. Veg. *Irish Heath.* Mount. of Mayo. S. 6. 7. *E. Bot.* 35.

Obs. It has the habit (and anthers) of Andromeda with the numbers of Erica.

2. *Anthers awnless, leaves 4 together.*

va'gans. 2. E. Anthers and style projecting, corol campanulate, flow. solitary, leaves 4 together. *Cornish Heath.* Heaths. P. 6—8. *E. Bot.* 3.

3. *Anthers with 2 smooth awns at the base, leaves 4 together.*

Tet'ralix. 3. E. Anthers awned, cor. ovate, including the style, leaves 4 together, ciliate, flow. capitate. (Leaves oblong, ciliate, tomentous underneath, flow. umbellate, calyxes ciliate, tomentous. With.) *Cross-leaved Heath.* Moist heaths. P. 7. *Curt.*

4. *Anth. with 2 dentato-serrated awns at the base, leaves opposite.*

vulga'ris. 4. E. Corols campanulate, nearly equal, calyxes double, leaves opposite, sagittate. *Common Heath.* Heaths. S. 7. 8. *Curt.* 297.

5. *Anth. with 2 dentato-serrated awns at the base, leaves 3 together.*

cine'rea. 5. E. Cor. ovate, style somewhat projecting, leaves 3 together, stigma capitate. (Leaves lanceolate, entire, smooth, flow. umbellate, ovate, calyxes finely serrated, branches woolly. With.) *Fine-leaved Heath.* Dry heaths. S. 6—8. *Curt.*

485. DAPH'NE. *Cal.* (generally) 0. *Cor.* 4-cleft, (funnel-shaped) shrivelling including the stamens. *Berry* 1-seeded.

1. *Flowers lateral.*

1. D. Flowers sessile, 3 together, on the stem, leaves lanceolate, deciduous. *Meze'reum.*
Mezereon. Woods. S. 2. 3. *F. Dan.* 268.

2. D. Racemes axillary, 5-flowered, leaves lanceolate, smooth. *Laure'ola.*
Laurel Mezereon. Woods. S. 3—4. *E. Bot.* 119.

2. *Flowers terminating.*

3. D. Flow. fasciculate, terminating, sessile, leaves lanceolate, naked, mucronate. See Symons. *Cne'orum.*
—— Lake near Snowdon. *Jacq. Austr.* 426.

TRIGYNIA.

495. POLYG'ONUM. *Cal.* 0. *Cor.* 5-parted, calyx-like. *Seed* 1, (angular, invested with the corol).

1. Persicariæ, *pistil bifid*, or *stam. fewer than* 8.

1. P. Fl. pentandrous, semidigynous, spike ovate. *amphib'ium.*
Var. 1. *aquaticum.* Stem creeping, leaves floating, oblongo-lanceolate, shining, stam. shorter than the corol.
Nar.-leav. Pondweed. Ditches. P. 6. 7. *E. B.* 436.
Var. 2. *terrestre.* Stem erect, leaves acuminate, rough, stam. longer than, or as long as, the corol.
Amphib. Snakeweed. Cult. ground. P. 9. *Curt.* 223.

2. P. Fl. hexandrous, semidigynous, leaves lanceolate, stipules nearly awnless (slightly ciliate, spikes cernuous). *Hydropi'per.*
Water-pepper. Watery places. A. 7—9. *Curtis.*

3. P. Fl. hexandrous, pist. slightly bifid (sometimes 3-cleft), leaves lineari-lanceolate, stem creeping at the base. See Curtis. *mi'nus.*
—— Moist meadows, A. 9. *Curt.*

4. P. Fl. hexandrous, digynous, spikes ovate-oblong, leaves lanceolate, stipules ciliate. *Persica'ria.*
Spotted Snakeweed. Ditches, &c. A. 7—9. *Curt.*

5. P. Fl. hexandrous, digynous; stipules not cili- *pal'lidum.*

ate; peduncles rough with glands; seeds depressed on each side. CURT. P. *Persicaria* ζ. Huds.

Pale-flowered Snakew. Dunghills, &c. A. 8. *Curtis.*

Var. 2. Stem and flow. red, like the preceding in every other respect. CURT.

—— 3. *Flea-bitten*, stem spotted with red. CURT. δ. Huds. Dill. in Ray syn. 146.

—— 4. Leaf hoary underneath. DILL. ib. 145. *Pet.* 3. 8.

2. Bistortæ, *spike single.*

Bistor'ta. 6. P. Stem undivided, leaves ovate, decurrent along the petiole.

Great Bistort. Moist meadows. P. 5. 6. *Curtis.*

vivip'arum. 7. P. Stem undivided, leaves lanceolate. (Spike loose, 3-cornered; seeds round. OESTERR. Lower flow. of the spike frequently passing into viviparous bulbs.)

Small Bistort. Mount. pastures. P. 6. *F. Dan.* 13.

Var. 2. β. Huds. Very small, lower leaves roundish, minutely serrated. RAY syn. 147. 3.

3. Polygona, *leaves undivided, flow. octandrous* (*stem branched*, WITH.).

avic'ulare. 8. P. Fl. octandrous, trigynous, axillary, leaves lanceolate, stem procumbent, herbaceous.

Var. 1. *latifolium.* α. Lin. Huds. V. 1. With. *Knot-grass Snakeweed.* A. 6—9. *Curt.* 1. 10.

—— 2. *brevifolium.* β. Lin. Huds. 2. With. Leaves oblong. Stam. 7. *Pet.* 10. 3.

—— 3. *angustifolium.* γ. Lin. Huds. 3. With. Leaves linear. *Pet.* 10. 3.

—— 4. δ. Huds. Leaves round. *Pet.* 10. 2.

marit'imum. 9. P. Flow. octandrous, trigynous, axillary (4 together) leaves ovali-lanceolate, evergreen, somewhat shrubby. P. *aviculare* ε. Huds. Var. 5. With.

Sea Knot-grass. Sea coast. P. 7—8. *Pet.* 10. 5.

4. Helxine, *leaves somewhat cordate.*

Fagopy'rum. 10. P. Leaves cordato-sagittate, stem somewhat erect, unarmed, angles of the seeds equal.

Buck-wheat. Cornfields. A. 7. 8. *Mart.* 46.

Convol'vulus. 11. P. Leaves cordate, stem twining, angular, flowers blunted.

Black Bindweed. Cornfields. A. 6—9. *Curt.* 253.

Obs. Dr. Withering has divided the species of Polygonum in the following manner:

1. Stem herbaceous, flow. with 5 stamens. *Amphibium.*
2. Flow. with 6 stam., caps. 1-celled. *Hydropiper, minus, Persicaria, pallidum.*
3. Flow. with 8 stam. and 3 pistils, spike single, stem undivided. *Bistorta, viviparum.*
4. Flow. with 8 stamens and 3 pistils, spike single, stem branched. *Aviculare.*
5. Leave somewhat cordate. *Fagopyrum, Convolvulus.*

TETRAGYNIA.

500. PAR'IS. *Cal.* 4-leaved. *Pet.* 4, narrower. *Berry* 4-celled.

1. P. Stem-leaves generally 4 (3—7). *Herb Paris.* Woods. P. 5. 6. *E. Bot.* 7. — *quadrifo'lia.*

501. ADOX'A. *Cal.* bifid, inferior. *Cor.* 4 or 5-cleft, superior. *Berry* (*Caps.*) 4 or 5-celled, united with the calyx.

1. ADOXA. (Lateral fl. 5-cleft, stam. 10, pist. 5.) *Tuberous Moschatel.* Woods. P. 4. 5. *Curt.* 137. — *moschatel'lina.*

502. ELAT'INE. *Cal.* 4-leaved. *Pet.* 4. *Caps.* 4-celled, 4-valved, depressed.

1. E. Leaves verticillate. *Waterwort.* Ditches. P. 8. *Vaill.* 1. 6. — *Alsinas'trum.*

CLASS IX.

ENNEANDRIA.

DIGYNIA.

(XXI. *Quercus.* XXII. *Mercurialis.*)

HEXAGYNIA.

(XXII. *Hydrocharis Morsus ranæ.*)

507. Bu'tomus. *Cal.* 0. (*Involucre* simple, 3-leaved.) *Cor.* 6-petalled. *Caps.* 6. *Seeds* many.

umbella'-tus. 1. Butomus.
Flowering Rush. Slow streams, &c. P. 6. *Curtis.*

CLASS X.

DECANDRIA.

MONOGYNIA.

1. *Flowers many-petalled, (petals) equal.*

536. MONOT'ROPA. *Cal.* corol-like, gibbous at the base. *Caps.* 5-celled, many-seeded.

554. PY'ROLA. *Anthers* 2-horned upwards. *Caps.* 5-celled, many-seeded.

(XI. *Lythrum salicaria.* XVI. *Geranium.*)

2. *Flowers* 1-*petalled, (segments) equal.*

549. ANDROM'EDA. *Cor.* campanulate, round. *Caps.* 5-celled.

552. AR'BUTUS. *Cor.* ovate, transparent at the base. *Berry* 5-celled.

(VIII. *Vaccinium Myrtillus & Oxycoccos, Chlora perfoliata.*)

3. *Flowers incomplete.*

(XXII. *Mercurialis.*)

DIGYNIA.

562. SCLERAN'THUS. *Cor.* 0. *Cal.* 5-cleft, superior. *Seeds* 2.

558. CHRYSOSPLE'NIUM. *Cal.* 0. *Cor.* superior. *Caps.* 2-celled, 2-beaked.

559. SAXIF'RAGA. *Cor.* 5-petalled. *Cal.* 5-parted. *Caps.* 1-celled, 2-beaked.

564. SAPONA'RIA. *Cor.* 5-petalled. *Cal.* tubular, naked at the base. *Caps.* 1-celled, oblong.

565. DIAN'THUS. *Cor.* 5-petalled. *Cal.* tubular, scaly at the base. *Caps.* 1-celled, oblong.

(V. *Herniaria.* XI. *Agrimonia Eupatoria.* XXI. *Quercus. Carpinus.*)

TRIGYNIA.

569. Arena'ria. *Caps.* 1-celled. *Petals* entire, spreading.

568. Stella'ria. *Caps.* 1-celled. *Petals* 2-parted, spreading.

566. Cucu'balus. *Caps.* 3-celled. *Petals* bifid, throat naked.

367. Sile'ne. *Caps.* 3-celled. *Petals* bifid, throat crowned.

570. Cherle'ria. *Caps.* 3-celled. *Nectaries* petal-like, smaller than the calyx.

(V. *Sambucus Ebulus. Alsine.* VIII. *Polygonum Bistorta.*)

PENTAGYNIA.

578. Cotyle'don. *Caps.* 5, annexed to the nectaries. *Cor.* 1-petalled.

579. Se'dum. *Caps.* 5, annexed to the nectaries. *Cor.* 5-petalled.

582. Ox'alis. *Caps.* 5-celled, angular. *Cor.* petals somewhat cohering at the base.

584. Lych'nis. *Caps.* 3-celled, oblong. *Cal.* tubular, membranous.

583. Agrostem'ma. *Caps.* 1-celled, oblong. *Cal.* tubular, coriaceous.

585. Ceras'tium. *Caps.* 1-celled. *Pet.* bifid. *Cal.* 5-leaved.

586. Sper'gula. *Caps.* 1-celled. *Petals* entire. *Cal.* 5-leaved.

(VIII. *Adoxa Moschatellina.* X. *Cucubalus Behen. Arenaria media.* XVI. *Geranium.* XXI. *Quercus.*)

MONOGYNIA.

536. Monot'ropa. *Cal.* 0. *Pet.* 10, 5 outer ones hollowed at the base, melliferous. *Caps.* 5-valved. (A fifth part of the number is wanting in some of the flowers.)

1. M. Lateral flowers with 8 stam., the terminating with 10. *Hypo'pithys.*
Bird's Nest. Woods. P. 7. *E. Bot.* 69.

554. PY'ROLA. *Cal.* 5-parted. *Pet.* 5. *Caps.* 5-celled, opening at the angles.

1. P. Stamens ascending, pistil declining (depresso-incurved, obliquely truncated. PERS.) *rotun'difo'lia.*
Com. Wintergreen. Woods. P. 6. 7. *E. Bot.* 213.
2. P. Flow. racemous, scattered, stam. and pist. straight. (Stam. spreading every way, E. BOT.) *mi'nor.*
Less Wintergreen. Woods. P. 6. 7. *E. Bot.* 158.
3. P. Raceme unilateral. (Cor. generally closed, pistil projecting, filam. geniculate. PERS.) *secun'da.*
Serrated Wintergreen, Woods. P. 6. *F. Dan.* 402.
4. P. Scape 1-flowered. *unifio'ra.*
Single-fl. Winterg. Moray, Scotl. P. 7. *E. Bot.* 146.

549. ANDROM'EDA. *Cal.* 5-parted. *Cor.* ovate, mouth 5-cleft. *Caps.* 5-celled.

1. A. Peduncles aggregate, corols ovate, leaves alternate, lanceolate, revolute. (Anthers awned.) *Polifo'lia.*
Wild Rosemary. Turf bogs. S. 5—6. *F. Dan.* 54.
2. A. Racemes 1-rowed, flowers 4-cleft, ovate, leaves alternate, lanceolate, revolute. Erica *Daboecii* Sp. Pl. See Erica *Daboecii.* Page 84. *Daboe'cia.*

Obs. The essence of the genus *Andromeda* consists in the capsule being superior; the dissepiments being formed from the middle of the valves, and not from their inflected margins. Hence A. *Daboecia*, &c. ought to be removed to *Erica.* SMITH Pl. icon. p. 48.

552. ARBU'TUS. *Cal.* 5-parted. *Cor.* ovate, mouth 5-cleft, base pellucid. *Berry* 5-celled.

1. A. Stem arboreous, leaves smooth, obtusely serrated, panicle terminating, berries many-seeded. *Une'do.*
Com. Strawberry-tree. West of Irel. S. 9. *Hunt.* P. 81.
2. A. Stems procumbent, leaves wrinkled, serrated (ciliate). *alpi'na.*
Mount. Str. Mount. in Scotl. S. 5. *Lightf.* 11.
3. A. Stems procumbent, leaves very entire (smooth, veined like net-work underneath). *U'va ur'si.*
Bear-berries. Heaths. S. 5. 6. *Woodv.* 70. *Ltf.* 11.

DIGYNIA.

562. SCLERAN'THUS. *Cal.* 1-leaved. *Cor.* 0. *Seeds* 2, inclosed in the calyx. (*Cal.* inferior. *Seed* 1. EHRHART.)

an'nuus. 1. S. Calyxes of the fruit patulous (segments acuminate, thornless; stems spreading; stigmas capitate, yellow).
German Knotgrass. Sandy gr. A. 7. 8. *E. Bot.* 351.

peren'nis. 2. S. Cal. of the fruit closed (segm. obtuse; stems procumbent, stigmas simple, white).
Perennial Knawell. Sandy cornf. P. 7. 8. *E.B.* 352.

polycar'pos? 3. S. Calyxes of the fruit widely spreading, thorny, stem rather villous.
— Broomholm, near Langholm, Eskdale. LIGHTF.

558. CHRYSOSPLE'NIUM. *Cal.* 4, or 5-cleft, coloured. *Cor.* 0. *Caps.* 2-beaked, 1-celled, many-seeded.

alter'nifo'lium. 1. C. Leaves alternate. (Ripe capsules distant from each other.)
Alternate-leaved Sengreen. Woods. P. 3. 4. *E. B.* 54.

oppos'itifo'lium. 2. C. Leaves opposite. (Beaks of the caps. remaining approximate; flow. sometimes octandrous.)
Golden Saxifrage. Shady pl. P. 3—5. *Curt.* 138.

559. SAXIFRAGA. *Cal.* 5-parted (5-cleft). *Cor.* 5-petalled. *Caps.* 2-beaked, 1-celled, many-seeded.

1. *Leaves undivided, stem almost naked.*

stella'ris. 1. S. Leaves serrated (oblongo-obovate), stem naked, branched; petals acuminate, (2 dots upon each; calyx reflected.)
Hairy Saxifrage. Moist rocks. P. 6. 7. *E. Bot.* 167.

niva'lis. 2. S. Leaves ovate, crenate, almost sessile, stem naked, flowers heaped together. (Leaves never sessile, but attenuated into a flat petiole. VAHL.)
Mount. Saxifrage. High mount. P. 4—10. *E.B.* 440.

umbro'sa. 3. S. Leaves ovate, somewhat retuse, margin cartilagineo-crenate, stem naked, panicled. (Leaves somewhat cordate, stem hirsute, reddish, pet. of a dilute red, spotted, larger spots yellow, smaller red, SCHKUKR.
London Pride. Mount. in Irel. P. 6. *Park.* 738. 2.

2. *Leaves undivided, stem leafy.*

4. S. Stem-leaves opposite, imbricated, the highest ciliate. (Flow. solitary, terminating. E. Bot.) *oppos'itifo'lia.*
Heath-like Saxifrage. Rocks. P. 4. *F. Dan.* 34.

5. S. Stem-leaves (lineari-) lanceolate, alternate, naked, unarmed, stem (nearly) erect. (Petals with 2 pointed projections towards the base. Curt.) *Hir'culus.*
Marsh Saxifrage. Knutsford Moor. P. 7. 8. *Curt.*

6. S. Stem-leaves lineari-subulate, scattered, naked, unarmed, stems decumbent. (Stem-leaves linear, scattered, generally dentato-ciliate; root-leaves aggregate, stem decumbent. E. Bot.) S. *autumnalis.* Huds. Lightf. *aizoi'des.*
Yellow Mount. S. Bogs on m. P. 7. 8. *E. Bot.* 39.

Obs. S. *autumnalis.* Lin., to which he has given this character, "Stem-leaves linear, alternate, ciliate; root-leaves aggregate," is a var. of S. *aizoides*, according to Haller and Jacquin; but Dr. Smith favours the opinion of Stokes, who makes it a ciliate var. of S. *Hirculus.*

3. *Leaves lobed, stems erect.* (hypnoides.)

7. S. Stem-leaves reniform, lobed, stem branched, root granulated. (Germen inferior.) *granula'ta.*
White Saxifrage. Dry pastures. P. 4. 5. *Curtis.*

8. S. Stem-leaves palmate, petioled, stem very simple, 1-flowered, bulbiferous. (Germ. superior—Var. with a branched stem.) *cer'nua.*
—— On Ben Lawers, Scotl. P. —— *F. Dan.* 22.

9. S. Stem-leaves palmate, highest floral leaf ovate, stem simple, mostly 2-flowered, *rivula'ris.*
—— Ben Nevis. —— *F. Dan.* 118.

10. S. Stem-leaves cuneiform, 3-cleft, alternate, stem erect, branched. *tridactyli'tes.*
Var. 2. Stem branched, upper leaves opposite, lanceolate.
—— 3. Stem unbranched, all the leaves entire.
Rue-leaved Sax. Walls, &c. A. 4. 5. *Curt.* 129.

11. S. Root-leaves aggregate, linear, entire, and 3-cleft, hirsute, glutinous as well as the stem, flow. on long peduncles. S. *cæspitosa.* Huds. *moscha'ta.*
Matted Saxif. Mount. P. 7. 8. *Jacq. Mis.* ii. 21.

12. S. Stem-leaves linear, entire, or 3-cleft, stolons procumbent, stem erect, nearly naked. *hypnoi'des,*
Moss Saxifrage. Rocks. P. 5—7. *E. Bot.* 454.

Obs. Wulfen has hitherto always found the stem-leaves very simple, awned, ciliate with hairs.

palma'ta. 13. S. Leaves hairy, palmate, lower ones 5-parted, upper 3-parted; shoots ascending, stem erect, leafy, panicle dense, few-flowered, petals roundish. E. Bot. S. *petræa* With. S. *cæspitosa* *F. Dan.* 71.

Palmate Saxif. Cwm Idwell. P. 4—6. *E. Bot.* 455.

Obs. S. *petræa*, to which this plant is referred by Withering, is thus described by Lin. "Stem-leaves palmato-3-parted, segments mostly 3-cleft, stem very much branched, limber;" and the following description is added by Persoon, from Vahl, "Leaves cuneiform, root-leaves entire, and 3-toothed; stem-leaves 5-toothed, upper ones 3-cleft, peduncles mostly 3-flowered." See *Sys. Veg.* ed. 15.—Dr. Smith informs us that the true S. *petræa* figured by Pona, and sent by Seguier to Lin., is widely different from the plant in question, and from var. β. of S. *tridactylites* in *Fl. Suec.* He cannot refer S. *palmata* to any species described in Haller, &c., but quotes the figure of *Fl. Danica* referred to above, and assures us that it has no resemblance to S. *cæspitosa* Lin. See E. Bot. p. 455.

564. SAPONA'RIA. *Cal.* 1-leaved, naked. *Pet.* 5, with claws. *Caps.* oblong, 1-celled.

officina'lis. 1. S. Calyx cylindrical, leaves ovato-lanceolate.

Common Soapwort. Meadows, &c. P. 7. 8. *Curtis.*

Obs. It is frequently found in a wild state with the petals much multiplied.

Var. 2. *Hollow-leaved.* Gentiana *concava* Ger. Leaf convolute. RAY syn. 339. 7. *Ger.* 435. *Park.* 641. It is no longer to be found, according to Morton, in the place pointed out by Gerard. See Dill. in Ray syn. 339.

565. DIAN'THUS. *Cal.* cylindrical, 1-leaved, with 4 (2—8) scales at the base. *Pet.* 5, with claws. *Caps.* cylindrical, 1-celled.

1. *Flowers aggregate.*

barba tus? 1. D. Fl. fascicled, calyx-scales ovato-subulate, as long as the tube, leaves lanceolate.

Sweet William. Wall King's Weston. P. 6. *Ger.* 598. 4.

Arme'ria. 2. D. Fl. fascicled, calyx-scales lanceolate, villous, (nearly) equal in length to the tube.

Deptford Pink. Gravelly mead. A. 7. *E. Bot.* 317.

prp'lifer. 3. D. Fl. capitate, calyx-scales ovate, obtuse, awnless, longer than the tube.

Proliferous Pink. Sandy mead. A. 7. *F. Dan.* 221.

2. *Fl. solitary, stem many-flowered.*

4. D. Calyx-scales somewhat ovate, very short, corols crenate (beardless). *Caryophyl'lus.*
Carnation. Old walls. P. 6. 7. *E. Bot.* 214.

5. D. Calyx-scales (mostly) 2, lanceolate, cor. crenate. (Leaves rather obtuse and pubescent. SMITH. in Lin. Tr. ii.—Pet. toothed, red, with a concentric line at the base, and white hair-bearing spots. PERS.) *deltoi'des.*
Maiden Pink. Pastures. B. 7—10. *E. Bot.* 61.

6. D. Flowers mostly solitary, calyx-scales lanceolate, four together, short, corols crenate. (Limbus white, not flesh-col., with a transverse purple line at the base. The 2 lower scales more remote from the calyx. ROTH. See Pers. p. 447.) *glau'cus.*
—— King's Park, Ed. P. 6. 7. *Dil. Elth.* 298, 384.
Obs. This is made a var. only of D. *deltoides* by Smith and Withering.

3. *Stem 1-flowered, herbaceous.*

7. D. Stems mostly 1-flowered, calyx-scales roundish, short; petals crenate, bearded, leaves rough at the margin. E. BOT. WITH. D. *virgineus* β. Lin. D. *glaucus* Huds. *cæ'sius.*
Mountain Pink. Chedder Rocks. P. 7. *E. Bot.* 62.

TRIGYNIA.

569. ARENA'RIA. *Cal.* 5-leaved, spreading. *Pet.* 5, entire. *Caps.* 1-celled, many-sedeed.

1. A. Leaves ovate, acute, fleshy. (Glands on the receptacle.) *peploi'des.*
Sea Sandwort. Sea shore. P. 6. 7. *E. Bot.* 189.

2. A. Leaves ovate, acute, petioles (3)-nerved. *triner'via.*
Plantain-leaved Sandwort. Hedges. A. 5. 7. *Curt.*

3. A. Leaves somewhat ovate, acute, sessile, corols shorter than the calyx. *serpyl'lifo'lia.*
Thyme-leaved Sandw. Walls. A. 5—7. *Curt.* 268.

4. A. (Very smooth) Leaves semi-cylindrical, acuminate, opposite, as long as (or longer than) the internodes of the stem; stipules membranous, acute, stem prostrate, caps. longer than (twice as long as) the calyx. WITH. A. *rubra* β. marina. Lin. See Pers. P. 454. *mari'na.*
—— Sea coast. P. 5—10. *F. Dan.* 740.

ru'bra. 5. A. Leaves filiform, stipules membranous, sheathing. (Leaves fascicled, as long as, or shorter than the internodes of the stem, calyx hirsute. Roth. Cal. as long as the caps., leaves only half as long as the joints. With.)
Purple S. Sandy past. A. 6—8. *Pet.* 59. 8.

me'dia? 6. A. Leaves linear, fleshy, stipules membranous, stems (and leaves) pubescent. (Calyx covering half the caps. A doubtfull plant. Pers.) A. *rubra* β. Huds. Spergula maritima, &c. Dill. in Ray 351. 11?
—— Past. near the Sea. A. 6—9. *Eph.* v. s. 6. t. 4.

Obs. Some doubts still remain whether A. *media* Lin. be a distinct species; and it is not quite clear to With. whether the British plant be the real *media* of Lin. He thinks the former may be only a var. of A. *marina*; and gives the following char. of it, "Leaves lineari-subulate, 6 in a verticil, stem erect, caps. twice the length of the calyx." See With. vol. 2. p. 422 & 3.

ver'na. 7. A. Leaves subulate, stems panicled, cal. acuminate, serrated. (Calyx-leaves lanceolate, shorter than the petals. With.)
Mountain Sandw. Mountains. A. 5—8. *Pet.* 59. 4.

ten'uifo'lia. 8. A. Leaves subulate, stem panicled, caps. erect, petals (one half) shorter than the calyx, lanceolate. (Calyx-leaflets acuminate, or awned, marked underneath with 2 green lines.)
Fine-leaved Sandw. Sandy past. A. 6. 7. *E. B.* 219.

ju'niperi'na. 9. A. Leaves subulate, thorny, stems erect, calyx striated, caps. oblong. (Calyx-leaves ovate, scarcely hirsute, nearly as long as the pet. With.)
—— Near Llanberris. P. — *Ger. fl. prov.* 15. 1.

la'ricifo'lia. 10. A. Leaves setaceous, stem somewhat naked above, cal. rather hirsute. (Calyx-leaves lineari-lanceolate, shorter than the pet. With.)
Larch-leaved Sandw. Mount. P. 7. 8. *Jacq. Aus.* 3. 272.

568. Stella'ria. *Cal.* 5-leaved, spreading. *Pet.* 5, 2-parted. *Caps.* 1-celled, many-seeded.

nem'orum. 1. S. Leaves (lower) cordate, petioled (upper ovato-lanceolate, sessile); panicled with branched peduncles.
Broad-leaved Stitchwort. Woods. P. 5. 6. *E. B.* 92.

Holos'tea. 2. S. Leaves lanceolate, finely serrated, pet. bifid.
Greater Stitchw. Hedges. P. 4. 5. *Curt.*

3. S. Pet. deeply divided, leaves ovato-cordate, stems with a hairy ridge on one side. WITH. Alsine *media*. Lin. See page 65. *me'dia.*

4. S. Leaves linear, very entire, flow. panicled. *Less Stitchw.* Hedge-banks. A. 5. *Pet.* 38. 3. *gramin'ea.*

5. S. Leaves lineari-lanceolate, very entire, glaucous, decussated; pet. half as large again as the calyx. SIBTH. in Flor. ox. where it is denominated S. *media*. S. *graminea* β. Huds. *Glaucous-leav. St.* Ditch-banks. P. 6. 7. *Pet.* 58. 2. *glau'ca.*

6. S. Leaves lanceolate, very entire, stems procumbent, panicles lateral. SCHREB. S. *graminea* γ. Lin. & Huds. *Bog Stitchwort.* Ditches, &c. A. 6. *Ger.* 613. 8. *uligino'sa.*

7. S. Leaves oblong, peduncles generally 2-flowered. (Stem diffuse, flower-bearing branches ascending, leaves sessile, smooth, flow. terminating 1—3, peduncles long, incrassated, 1-flowered. SMITH.) —— On Ben Nevis, Scotl. *Smith* pl. ic. 15. *cerastoi'des.*

566. CUCU'BALUS. *Cal.* inflated. *Pet.* 5, with claws, throat not crowned. *Caps.* 3-celled.

1. C. Cal. campanulate, pet. distant, pericarps coloured, branches diverging. *baccif'erus.*

Obs. By the crown at the throat of the corol (which however is sometimes wanting) we might be led to refer this plant to Silene; but the fruit, which is a one-celled berry, excludes it both from Cucubalus and Silene. See With.

Berry-bear. Chickweed. Hedges. P. 6. 7. *Ger.* 614. 13.

2. C. Cal. nearly globular, smooth, with reticulated veins, caps. 3-celled, corols nearly naked. (Leaves ovato-lanceolate, glaucous, smooth. E. BOT.) *Be'hen.*

Spattling Poppy. Cornfields. P. 6—8. *E. Bot.* 164.

3. C. Fl. dioicous (verticillate), pet. linear, undivided. *Oti'tes.*

Spanish Campion. Grav. past. P. 7. 8. *E. Bot.* 85.

567. SILE'NE. *Cal.* ventricose. *Pet.* 5, with claws, crowned at the throat. *Caps.* 3-celled.

1. *Fl. solitary, lateral.*

1. S. Hirsute, pet. emarginate, fl. erect, when in fruit reflected, peduncled, alternate. *an'glica.*

English Catchfly. Sandy cornfi. A. 6. 7. *Curt.* 266.

quinquevulnera. 2. S. Pet. very entire, roundish, fruit solitary, erect, alternate.
Variegated Catchf. Sandy cornfi. A.6—8. *E. Bot.* 86.

2. *Fl. lateral, or terminating.* WITH.

nutans. 3. S. Pet. bifid, fl. lateral, 1-rowed, cernuous, panicle nodding. (Calyx ribbed.)
Nottingham Catchfly. Walls. P. 6. 7. *E. Bot.* 465.

maritima. 4. S. Stem procumbent, branches ascending, calyx veined, smooth, pet. cloven, segments very entire. WITH. C. *Behen* β. Lin. S. *amœna.* Huds.
Sea Campion. Sea coast. P. 3—8. *F. Dan.* 857.

3. *Flowers from the forks of the stem.*

Armeria. 5. S. Fl. fasciculate, fastigiate, higher leaves cordate (or cordato-lanceolate), smooth, pet. entire.
Common Catchfly. Cornfields. A. 7. 8. *F. Dan.* 559.

conoidea. 6. S. Cal. of the fruit globular, acuminate, striated with 30 scores, leaves smooth (veined), pet. entire.
Corn Catchfly. Sandy cornfi. A. 6. 7. *Ger.* 470. 7.

conica. 7. S. Cal. of the fruit conical, with 30 scores, leaves soft, pet. cloven. (Leaves rather tomentous, veinless. Pet. indistinctly emarginate, almost entire. ROTH.)
—— Sandy cornfields. A. 6. 7. *Ger.* 470. 6.

noctiflora. 8. S. Cal. 10-angled, teeth as long as the tube, stem dichotomous, pet. bifid. (Stem and cal. viscous, hairy.)
Night-flowering C. Cornfields. A. 7. *E. Bot.* 291.

4. *Stemless.*

acaulis. 1. S. Depressed, pet. emarginate (caps. globular). Cucubalus *acaulis.* Huds.
Moss Catchfly. Highl. Mount. P. 5. 6. *Lightf.* 12. 1.

570. CHERLE'RIA. *Cal.* 5-leaved. *Nect.* 5, bifid, petaliform. *Anth.* alternate ones barren. *Caps.* 1-celled, 3-valved, 3-seeded.

sedoides. 1. CHERLERIA.
Moss-like Cyphel. Highl. M. P. 7. 8. *Park.* 737. 11.

PENTAGYNIA.

578. COTYLE'DON. *Cal.* 5-cleft. *Cor.* 1-petalled. *Scales* 5 nectariferous at the base of the germ. *Caps.* 5.

1. C. Leaves peltate, crenate (the lowest sometimes reniform), stem mostly simple, flow. pendulous, bractes entire. HUDS. C. *umbilicus* β. Lin. — *umbili'cus.*

Com. Navel-wort. Old walls. P. 6—8. *E. Bot.* 325.

2. C. Leaves peltate, crenate, stem nearly simple, flow. erect, bractes toothed. HUDS. C. *umbilicus* α. Lin. — *lu'tea.*

Yellow Navel-wort. Walls, &c. P. 6. *Dodart.* 73.

Obs. The above two species are considered as var. only by Lin., who gives the annexed char. of C. *umbilicus*, "Leaves cucullato-peltate, serrato-dentate, alternate, stem branched, flowers erect."

579. SE'DUM. *Cal.* 5-cleft. *Cor.* 5-petalled, *Scales* 5 nectariferous at the base of the germ. *Caps.* 5.

1. *Leaves flat.*

1. S. Leaves flattish, serrated, corymb leafy, stem erect. — *Tele'phium.*

Orpine Stonecrop. Hedges. P. 8. *Curt.* 210.

2. *Leaves cylindrical.*

2. S. Stem erect, leaves flattish, leaves and pedunCles somewhat hairy. — *villo'sum.*

Marsh Stonecr. Moist rocks. A. 6. 7. *E. Bot.* 394.

3. S. Leaves oblong, obtuse, nearly cylindrical, sessile, spreading, cyme branched. — *al'bum.*

White-flowered Stonec. Walls, &c. P. 6. 7. *Curt.*

4. S. Leaves nearly ovate, adnato-sessile, gibbous, somewhat erect, alternate, cyme 3-cleft. — *a'cre.*

Pepper Stonecrop. Walls, &c. P. 6. 7. *Curtis.*

5. S. Leaves somewhat ovate, adnato-sessile, gibbous, rather erect, imbricated in 6 rows. — *sexan'gula're.*

Insipid Stonec. Walls, &c. P. 6. *Curt.* 225.

6. S. Leaves somewhat ovate, adnato-sessile, gibbous, alternate, cyme branched, bifid. HUDS. — *an'glicum.*

English Stonec. Rocks, &c. P. 5—8. *E. Bot.* 171.

7. S. Leaves opposite, ovate, obtuse, fleshy, stem weak, flow, scattered. — *dasyphyl'lum.*

Round-leaved St. Walls, &c. P. 6. 7. *Curt.* 147.

reflex'um. 8. S. Leaves subulate, scattered, loose at the base, the lower ones recurved.
Yellow Stonecrop. Walls, &c. P. 7. *F. Dan.* 113.

rupes'tre. 9. S. Leaves subulate, 5-rowed, crowded, loose at the base, flowers cymous. Pet. sometimes 6, or 7.
Rock Stonec. St. Vincent's rocks. P. 7. *E. Bot.* 170.

582. Ox'alis. *Cal.* 5-leaved. *Pet.* connected by the claws. *Caps.* 5-cornered, opening at the angles.

Ace'tosel'la. 1. O. Scapes 1-flowered, leaves ternate, leaflets obcordate, hairy.
Wood Sorrel. Woods, &c. P. 4. 5. *Curt.* 111.

cornicula'ta. 2. O. Stem decumbent, herbaceous, pedunclés umbelliferous.
Yellow-flow. Wood S. Near Exet. P. 5—10. *F. D.* 873.

584. Lych'nis. *Cal.* 1-leaved, oblong, smooth. *Pet.* 5, with claws, limbus (laminæ) mostly bifid. *Caps.* (1—3, or) 5-celled.

1. *Flow. dioicous.*

dioi'ca. 1. L. Capsules 1-celled, roundish, (teeth recurved; flow. red, inodorous, open all the day.) Sibth. L. *dioica* α. Huds. With.
Red-flow. Campion. Hedges. P. 5—9. *Curtis.*

vesperti'na. 2. L. Capsules 1-celled, conical (teeth straight; flow. white, odorous, opening towards evening). Sibth. L. *dioica* β. Huds. With.
White-fl. Campion. Hedges. P. 6—8. *F. Dan.* 792.

Obs. These two species are included under L. *dioica* by Lin., with this char. "Flow. dioicous."

Obs. 2. Hudson observes that L. *dioica* sometimes bears hermaph. flow., and that the petals are then flesh-coloured.

2. *Flow. hermaphrodite.*

Flos-cu'culi. 2. L. Petals (3, or) 4-cleft, fruit roundish. (Caps. 1-celled, 5-toothed. Ehrh.)
Meadow Pinks. Moist Meadows. P. 6. *Curtis.*

Visca'ria. 3. L. Petals nearly entire.
Viscous Catchfly. Mount. past. P. 5. 6. *F. Dan.* 1032.

583. Agrostem'ma. *Cal.* 1-leaved, coriaceous. *Pet.* 5, with claws. *Limbus* obtuse, undivided. *Caps.* 1-celled.

1. A. Hirsute, calyx as long as (longer than) the corol, petals entire, naked. *Githa'go.*
Corn Cockle. Cornfields. A. 6. 7. *Curt.* 209.

585. CERAS'TIUM. *Cal.* 5-leaved. *Pet.* bifid. *Caps.* 1-celled, opening at the point.

1. *Capsules oblong.*

1. C. Erect, villous, viscous. *visco'sum.*
Clammy Mouse-ear. Pastures. A. 4—10. *Curtis.*
2. C. Leaves ovate, pet. equal to the calyx, stems diffuse. *vulga'tum.*
Narrow-leav. Mouse-ear. Past. P. 5—8. *Curt.* 130.
3. C. Leaves ovato-lanceolate (elliptical); stem divided; caps. oblong (curved; panicle forked, few-flowered, furnished with bractes. E. BOT.). *alpi'num.*
Alpine Mouse-ear. Mount. P. 6—8. *E. Bot.* 472.
4. C. Leaves ovate, somewhat tomentous, branches 1-flowered, caps. globular. (Leaves oblongo-ovate, obtuse, hairy, branches annual, flaccid, 1 or 2-flowered, caps. oval below, cylindrical, and slightly bent upwards, 10-cleft. JACQ.) *latifo'lium.*
Broad-leav. Rough Chickw. Clogwyn y Garnedd. P. 6. 8. *E. Bot.* 473.
Obs. This species is placed in the next division by Lin.
5. C. Leaves lineari-lanceolate, obtuse, smooth (ciliate at the base); corols larger than the calyx. *arven'se.*
Corn Mouse-ear. Cornfields. P. 5—9. *E. Bot.* 93.
6. C. Fl. pentandrous (stam. sometimes 10, 5 inner ones barren, appearing later, pet. emarginate). *sem'i-decan'drum.*
Least Mouse-ear. Walls, &c. A. 4. 5. *Curt.* 122.
7. C. Fl. pentandrous, pet. cloven ($\frac{1}{3}$ of their length), as long as the calyx, caps. twice as long. WITH. *pu'milum.*
—— On dry banks, near Croydon. A. 2. 3. *Curt.*
8. C. Stem diffuse, dichotomous, flow. mostly tetrandrous (sometimes pentandrous), caps. scarcely longer than the calyx. CURT. Sagina *cerastoides.* E. Bot. 166. Lin. Tr. ii. 343. With. See S. *cerastoides.* Page 38. *tetran'drum.*
Mouse-ear Chickw. Inch Keith. 5. 6. *Curtis.*
Obs. Mr. Curtis found about $\frac{1}{4}$ of the flowers with 5 stamens; and, from the form and structure of the pericarp (a part, which forms the striking char. of a Cerastium),

and the form of the seeds, as well as the general habit of the plant, has been induced to place it in this genus. Fl. Lond. V. ii.

2. *Capsules roundish* (latifolium).

umbella'tum. 9. C. Leaves ovate, flowers umbellate, petals nearly entire, fruit pendulous. Huds. See Holosteum *umbellatum.* Page 30.

tomento'sum. 10. C. Leaves oblong, tomentous (white), peduncles branched, caps. globular.
Woolly Mouse-ear. Ripton Wood, Huntingdonsh.

aquat'icum. 11. C. Leaves cordate, sessile, flow. solitary, fruit pendulous. (Resembling Stellaria *nemorum.* Stem diffuse, decumbent, flaccid, leaves undulated, flow. in pairs, fruit reflected, caps. inflated, 5-valved, valves reflected, 2-cleft, styles 4, or 5. Pers.)
Marsh Mouse-ear. Watery places. P. 7. *Curtis.*

586. Sper'gula. *Cal.* 5-leaved. *Pet.* 5, entire. *Caps.* ovate, 1-celled, 5-valved.

arven'sis. 1. S. Leaves verticillate, flow. decandrous (with more than 5 stam., stems thick at the joints, fruit pendulous).
Corn Spurry. Cornfields, &c. A. 7—9. *Curt.*
Var. 2. β. Huds. S. *pentandra.* Lin. Leaves verticillate, flow. pentandrous.

subula'ta. 2. S. Leaves verticillate, hairy at the margin, rather 1-rowed, stems filiform, fl. solitary, stam. 5—10. With. S. *laricina.* Huds. Lightf. S. *saginoides.* Curt.
—— Dry grav. past. P. 6—8. *Curt.* 139.

Obs. With. informs us, on the authority of Afzelius, that this is a kind of intermediate plant between S. *laricina* and *saginoides* Lin. Swartz gives the following description of S. *subulata*, "Leaves opposite, rather pointing one way, linear-subulate, keeled, ciliate, flow. decandrous." Act. Holm. 1789.

nodo'sa. 3. S. Leaves opposite, subulate, smooth, stems simple.
Knotted Spurry. Marshy places. P. 7—9. *Curt.* 261.

CLASS XI.

DODECANDRIA.

MONOGYNIA.

589. As'arum. *Cor.* 0. *Cal.* 3-cleft, superior. *Caps.* 6-celled.

604. Lyth'rum. *Cor.* 6-petalled. *Cal.* 12-cleft, inferior. *Caps.* (1, or) 2-celled.

(XXI. *Ceratophyllum.*)

DIGYNIA.

607. Agrimo'nia. *Cor.* 5-petalled. *Cal.* 5-cleft. *Seeds* 1, or 2.

(XII. *Cratægus.* XXI. *Carpinus.* XXII. *Mercurialis.*)

TRIGYNIA.

608. Rese'da. *Cor.* petals many-cleft. *Cal.* parted. *Caps.* 1-celled, (always) gaping.

609. Euphor'bia. *Cor.* petals peltate. *Cal.* ventricose. *Caps.* 3-grained (3-lobed. E. Bot.)

(XXI. *Fagus.*)

TETRAGYNIA.

(XII. *Tormentilla erecta.*)

HEXAGYNIA.

(X. *Sedum Dasyphyllum.*)

DODECAGYNIA.

612. SEMPERVI'VUM. *Cor.* 12-petalled. *Cal.* 12-parted. *Caps.* 12.

(XIII. *Thalictrum Alpinum.*)

MONOGYNIA.

589. AS'ARUM. *Cal.* 3, or 4-cleft, sitting on the germ. *Cor.* 0. *Caps.* coriaceous, crowned.

europæ'um. A. Leaves reniform, obtuse, in pairs.
Asarabacca. Woods, &c. P. 5. *F. Dan.* 633.

604. LYTH'RUM. *Cal.* (6) 12 (or 16)-cleft. *Pet.* 6, inserted in the calyx. *Caps.* 2-celled, many-seeded.

Salica'ria. 1. L. Leaves opposite (or alternate), cordato-lanceolate, flow. spiked, dodecandrous.
Purple-spiked Willow-herb. Marshes. P. 7. 8. *Curt.* Var. 2. Leaves 3 together, stem 6-cornered. RAY.

Hysso'pifo'lia. 2. L. Leaves alternate, linear, flow. hexandrous. (Stam. 2; 4, 5 sometimes; calyx-teeth 12, 6 larger; 6 minute, sometimes wanting. SCHKUHR.)
Hyssop-leav. Willow-h. Watery pl. A. 7. 8. *E. B.* 292.

DIGYNIA.

607. AGRIMO'NIA. *Cal.* 5-toothed, fenced with another. *Pet.* 5. *Seeds* 2, in the bottom of the calyx.

Eupato'ria. 1. A. Stem-leaves pinnate, the odd leaflet petioled, fruit hispid.
Com. Agrimony. Cornfields, &c. P. 6. 7. *Curt.* 317.

TRIGYNIA.

608. RESE'DA. *Cal.* 1-leaved, parted. *Pet.* laciniated. *Caps.* opening at the mouth, 1-celled.

Obs. The character of this genus is very difficult to be determined, as it varies both in figure, and number in the different species.

Lute'ola. 1. R. Leaves lanceolate, entire, 1-toothed on each side of the base; calyx 4-cleft.
Wild Woad. Pastures. A. 6. 7. *Mart.* 40. *E. Bot.* 320.

2. R. All the leaves 3-cleft, the inferior pinnate. *lu'tea.*
Base Rocket. Cornfields. A. 6—8. *E. Bot.* 321.

609. EUPHOR'BIA. *Cor.* 4, or 5-petalled, sitting on the calyx. *Cal.* 1-leaved, ventricose. *Caps.* 3-grained (pedicelled, elastic. GAERTN.).

1. *Dichotomous.*

1. E. Dichotomous, leaves very entire, semi-cordate, flow. solitary, axillary, stems procumbent. *Pep'lis.*
Purple Spurge. Sea shore. A. 7. 8. *Ger.* 503. 20.

2. *Umbel 3-cleft (with 3 rays).*

2. E. Umbel 3-rayed, rays dichotomous, involucrets ovate, leaves very entire, obovate, petioled. *Pep'lus.*
Petty Spurge. Cultivated soil. A. 7. 8. *Curt.*

3. E. Umbel 3-rayed, rays dichotomous, involucrets lanceolate, leaves linear. (Pet. crescent-shaped, fruit smooth—A single flower between the forks.) *exig'ua.*
Dwarf Spurge. Cornfields. A. 7—9. *Curt.* 215.
Var. 2. Umbel 5-rayed. RELH. E. *platyphyllos* β. Huds.

3. *Umbel 5 cleft (with 5 rays).*

4. E. Umbel mostly 5-rayed, rays bifid, involucrets cordato-reniform, leaves (linear) imbricated upwards. (Plant glaucous.) *para'lia.*
Sea Spurge. Sea shores. P. 8. 9. *E. Bot.* 195.

5. E. Umbel 5-rayed, rays dichotomous, involucrets somewhat cordate, concave, leaves linear-lanceolate, smooth, spreading. (Flow. male, and hermaph. SP. PL. 657.) *Portlan'dica.*
Portland Spurge. Sea shores. A. 5—8. *E. Bot.* 441.

6. E. Umbel 4, or 5-rayed, rays trifid, raylets dichotomous, involucrets nearly ovate, leaves lanceolate, serrulated (entire at the base), smooth, caps. warty, hairless. SYST. NAT. Ed. 10. p. 1049. SMITH. WITH. *stric'ta.*
Upright warty Spurge. Woods. A. ? 8. *E. Bot.* 333.
Obs. This species was omitted in the subsequent Ed., and confounded with E. *verrucosa.*

7. E. Umbels 5-rayed, rays trifid, raylets dichoto- *heliosco'pia.*

mous, involucrets obovate, leaves cuneiform, serrated. (Pet. entire, fruit smooth.)
Wartwort. Cornfields. A. 7. 8. *Curt.*

platyphyl'los. 8. E. Umbels 5-rayed, rays trifid, raylets dichotomous, involucrets hairy on the keel, leaves serrated, lanceolate, caps. warty.
Long-leaved Corn Sp. Cornfi. A.6.7. *Jacq. Aus.*376.
Var. 2. β. Huds. Leaves nearly entire, only very slightly serrulated at the base.

4. *Umbel many-cleft (with more than 5 rays).*

hyber'na. 9. E. Umbel 6-rayed, rays dichotomous, involucrets oval, leaves very entire, branches none, caps. warty.
Irish Spurge. Cornfields. P. 8. *Ger.* 500. 12.

Chara'cias. 10. E. Umbel many-rayed, rays bifid; involucrets perfoliate, emarginate, leaves very entire, stem shrubby. (Fruit hairy, petals entire, purple, flow. male, and hermaph.)
Red Spurge. Woods, &c. S. 6. *E. Bot.* 442.

Cyparis'sias. 11. E. Umbels many-rayed, rays dichotomous, involucrets somewhat cordate, branches barren with setaceous leaves, stem-leaves lanceolate. (Pet. crescent-shaped, fruit smooth.)
—— Woods at Enville. — 5. 6. *Jacq. Austr.* 435.
Obs. Roth has found the caps. warty.

amygdaloi'des. 12. E. Umbels many-rayed, rays dichotomous, involucrets perfoliate, orbicular, leaves obtuse. (Peduncles scattered below, umbellate above. E. Bot.)
Wood Spurge. Woods, &c. P. 5. *E. Bot.* 256.

DODECAGYNIA.

612. Sempervi'vum. *Cal.* 12-parted. *Pet.* 12. *Caps.* 12, many-seeded.

tecto'rum. 1. S. Leaves ciliate, off-sets spreading.
Common House-leek. Roofs, &c. P. 7. *Curt.* 160.

Obs. When luxuriant, the number of the parts of the flower is greater.

CLASS XII.

ICOSANDRIA.

MONOGYNIA.

620. PRU'NUS. *Cal.* inferior, 5-cleft. *Cor.* 5-petalled. *Drupe* with an entire nucleus.

(Cratægus.)

DIGYNIA.

622. CRATÆ'GUS. *Cal.* superior, 5-cleft. *Cor.* 5-petalled. *Berry* 2-seeded.

(Prunus insititia.)

TRIGYNIA.

623. SOR'BUS. *Cal.* superior, 5-cleft. *Cor.* 5-petalled. *Berry* 3-seeded.

PENTAGYNIA.

625. MES'PILUS. *Cal.* superior, 5-cleft. *Cor.* 5-petalled. *Berry* 5-seeded.

626. PY'RUS. *Cal.* superior, 5-cleft. *Cor.* 5-petalled. *Pome* 5-celled, many-seeded.

630. SPIRÆ'A. *Cal.* inferior, 5-cleft. *Cor.* 5-petalled. *Caps.* many, heaped together.

POLYGYNIA.

631. RO'SA. *Cal.* 5-cleft. *Cor.* 5-petalled. *Cal.* like a berry, many-seeded.

632. RU'BUS. *Cal.* 5-cleft. *Cor.* 5-petalled. *Berry* compound.

635. TORMENTIL'LA. *Cal.* 8-cleft. *Cor.* 4-petalled. *Seeds* 8, awnless.

637. DRY'AS. *Cal.* 5—10-cleft. *Cor.* 5—8-petalled. *Seeds* numerous, with a woolly awn.

633. FRAGA'RIA. *Cal.* 10-cleft. *Cor.* 5-petalled. *Seeds* numerous, upon a receptacle like a berry, deciduous.

634. POTENTIL'LA. *Cal.* 10-cleft. *Cor.* 5-petalled. *Seeds* numerous, awnless.

636. GE'UM. *Cal.* 10-cleft. *Cor.* 5-petalled. *Seeds* numerous, with a geniculate awn.

638. COM'ARUM. *Cal.* 10-cleft. *Cor.* 5-petalled. *Seeds* numerous, upon a fleshy receptacle, permanent.

(XI. *Sempervivum tectorum.* XII. *Spiræa.*)

MONOGYNIA.

620. PRU'NUS. *Cal.* 5-cleft, inferior. *Pet.* 5. *Drupe* a nut with rather prominent sutures.

Pa'dus. 1. P. Flow. racemous, leaves deciduous, 2-glanded at the base on the under side.
Birds-cherry. Hedges, &c. S. 5. *F. Dan.* 205.

Cer'asus. 2. P. Umbels somewhat peduncled, leaves ovato-lanceolate, smooth, doubled together. 1.
Com. Wild Cherry-tree. Woods. T. 5. *Hunt.* 181.

a'vium. 3. P. Umbels sessile, leaves ovato-lanceolate, pubescent underneath, doubled together. 2.
Black Cherry-tree. Hedges. T. 5. *Blackw.* 425. 3.

domes'tica. 4. P. Peduncles mostly solitary, leaves lanceolato-ovate, convolute, branches thornless. P. *communis.* δ. Huds.
Common Plumb-tree. Hedges. T. 4. *Woodv.* 85.

insiti'tia. 5. P. Peduncles in pairs, leaves ovate, somewhat villous, convolute, branches thorny.
Bullace-tree. Hedges. T. 4. ——

spino'sa. 6. P. Peduncles solitary, leaves-lanceolate, smooth, branches thorny.
Sloe-tree. Hedges. T. 3. 4. *Woodv.* 84. 1.

DIGYNIA.

622. CRATÆ'GUS. *Cal.* 5-cleft. *Pet.* 5. *Berry* inferior, 2-seeded (opening at the top, 1-celled, 1, or more -seeded). 1.

1. C. Leaves ovate, incised, serrated, tomentous underneath. *A'ria.*
White-beam-tree. M. Woods. T. 5. *F. Dan.* 302.

2. C. Leaves cordate, 7-lobed, lowest lobes diverging. *tormina'lis.*
Wild Service-tree. Woods, &c. T. 5. *E. Bot.* 298.

3. C. Leaves obtuse, mostly trifid, serrated. *F. Dan.* 634. *Ox'yacan'tha.*
Var. 2. *Monogyna.* C. *monogyna.* Lin. Fl. monogynous, segments of the leaves more acute, and spreading. *Sheldr.* 21. *Ger.* 1327. 1.
—— 3. *Trigyna.* Flow. trigynous.
White-thorn. Hedges, &c. T. 5. 6. *Hunt.* 92.
Var. 4. *Glastonbury-thorn.* Appendages at the base of the leaves reniform, toothed, large.

Obs. The winter blossoms produce no fruit; and the berries produce plants in every respect similar to the common Hawthorn. See With. V. 2. p. 459.

TRIGYNIA.

623. Sor'bus. *Cal.* 5-cleft. *Pet.* 5. *Berry* inferior, 3-seeded. (*Pome* 5-celled, open at the top, 3 (to 5) -seeded. With.)

1. S. Leaves pinnate, smooth on both sides. *aucupa'ria.*
Mountain Ash. Hedges, &c. T. 5. *E. Bot.* 337.

2. S. Leaves pinnate, villous underneath. (Styles 5, fruit turbinate.) See Pyrus *domestica.* P. 110. *domes'tica.*

3. S. Leaves semi-pinnate, tomentous underneath. (Flow., Corymb, and 3 pistils of S. *aucuparia,* stature and foliage nearly of Crat. Aria.) *hy'brida.*
Bastard Service-tree. Mount. T. 5. *F. Dan.* 301.

PENTAGYNIA.

625. Mes'pilus. *Cal.* 5-cleft. *Pet.* 5. *Berry* inferior, 5-seeded (1, 2, or 5-celled).

1. M. Unarmed, leaves lanceolate, tomentous underneath, flow. solitary, sessile. *german'ica.*
Medlar T. Hedges. T. 5. *Blackw.* 154. *Ger.* 1453. 1.

626. Py'rus. *Cal.* 5-cleft. *Pet.* 5. *Pome* inferior, 5-celled, many-seeded.

1. P. Leaves serrated, smooth, flow. corymbous. *commu'nis.*
Pear-tree. Woods. T. 4. 5. *Blackw.* 453. *Ger.* 1457.

Ma'lus. 2. P. Leaves serrated, umbels sessile.
Crab-tree. Woods, &c. T. 5. *E. Bot.* 179.
Var. 2. *cultivated.* — T. 5. *Blackw.* 141.

domes'tica. 3. P. Leaves pinnate, leaflets equal, tomentous underneath, serrated towards the point, flow. panicled. E. Bot. Sorbus *domestica.* Lin. Huds. With. See page 109.
Service-tree. Wire Forest. T. 4. *E. Bot.* 350.

630. Spiræ'a. *Cal.* 5-cleft. *Pet.* 5. *Caps.* many-seeded. (*Caps.* 4 or more, 2-celled, 2-valved, many-seeded.)

sal'icifo'lia. 1. S. Leaves lanceolate, obtuse, serrated, naked, flow. doubly-racemous.
— Near Hawshead. Mr. Dalton. S. 7. *F. Ros.* 21.

Filipen'dula. 2. S. Leaves interruptedly pinnate, leaflets linear-lanceolate, interrupt. serrated, very smooth, flow. cymous (with many pistils).
Dropwort. Mount. pastures. P. 6. 7. *E. Bot.* 284.

Ulma'ria. 3. S. Leaves interruptedly pinnate, leaflets ovate, doubly serrated, hoary underneath, flow. cymous. (Pist. more than 5.)
Com. Meadowsweet. Moist mead. P. 6. 7. *Curt.* 340.

POLYGYNIA.

631. Ro'sa. *Pet.* 5. *Cal.* urceolate, 5-cleft, fleshy, contracted at the neck. *Seeds* many, hispid, fixed to the inside of the calyx.

1. *Germens somewhat globular* (rubiginosa).

arven'sis. 1. R. Germ. globular, smooth as well as the peduncles, stem and petioles prickly, flow. cymous. (Prickles bowed downwards.)
White-flow. Dog's-rose. Hedges. S. 6. 7. *E. Bot.* 188.
Var. 2. Only 1-flowered. R. *arvensis.* β. Huds. var. 2. With. *Wild Dog-rose.*

spinosis'sima. 2. R. Germ. globular, smooth, peduncles hispid (smooth), stem and petioles very prickly. (Prickles straight, leaflets circular, smooth).
Burnet-rose. Heaths, &c. P. 6. 7. *E. Bot.* 187.
Var. 2. 3. With. Peduncles prickly, flow. cream-colour, changing to white.

villo'sa. 3. R. Germens globular, they and the peduncles hispid, stem with scattered prickles, petioles prickly, leaves tomentous.
Apple-rose. Mount. hedges. S. 6. *Park. Par.* 419. 7.

Var. 2. β. Huds. *Wild Briar, with large prickly Heps.* Calyx persisting. RAY syn. 454. 2.

2. *Germens ovate.*

4. R. Germens globular (ovate), they and the petioles prickly (at the base), prickles recurved, leaves rusty underneath. R. *eglanteria.* Huds. *rubigino'sa.*
Sweet-briar Rose. Hedges. S. 6. 7. *F. Dan.* 870.

5. R. Germens and peduncles smooth, stem and petioles prickly. *cani'na.*
Dog's-rose. Hedges. S. 6. *Curt.* 299.

632. RU'BUS. *Cal.* 5-cleft. *Pet.* 5. *Berry* composed of 1-seeded granulations. (*Drupe* 1-celled, clustered, fixed to a conical receptacle, so as to resemble a berry. WITH.)

1. *Shrubby.*

1. R. Leaves pinnate, quinate and ternate, stem prickly, petioles channelled. *idæ'us.*
Rasp-berry Bush. Woods. S. 5. 6. *F. Dan.* 788.

2. R. Leaves ternate, almost naked, lateral leaves 2-lobed, stem prickly, cylindrical. (Panicle few-flowered. WOODW. Peduncles and cal. covered with glands. SCHKUHR.) *cæ'sius.*
Dew-berry Bush. Woods. S. 6. 7. *Dod.* 742. 2.

3. R. Leaves quinato-digitate, and ternate, stem & petioles prickly. (Panicle oblong. WOODW.) *frutico'sus.*
Bramble. Hedges, &c. S. 6—9. *Mill. ill.*
Var. 2. *major.* Leaves 3-fingered and 5-fingered. Segm. of the cal. clasping the fruit. WOODW. See With. V. 2. 469.
—— Hedges, Norfolk. *Blackw.* 45. 1.
Var. 3. Fruit white. Hedge near Oxford.

2. *Herbaceous.*

4. R. Leaves ternate, naked, runners herbaceous. (Lower leaves sometimes 5 together. SMITH.) *saxat'ilis.*
Stone Bramble. Mountains. P. 6. *F. Dan.* 134.

5. R. Leaves ternate, stem unarmed, 1-flowered. *arc'ticus.*
—— Highl. of Scotl. P. 5. *Curt. Bot. Mag.* 132.

6. R. Leaves simple, lobed, stem unarmed, 1-flowered. (Dioicous, or rather monoicous, as the roots of the male and female plants are united under ground. SOLANDER.) *Chamæmo'rus.*
Cloud-berry Br. Mountains. P. 5. 6. *F. Dan.* 1.

635. TORMENTIL'LA. *Cal.* 8-cleft. *Pet.* 4. *Seeds* roundish, naked, fixed on a small juiceless receptacle.

erec'ta. 1. T. Stem somewhat erect, leaves sessile. (Root-leaves petioled, ternate.) T. *officinalis*, Curtis and With.
Common Tormentil. Barren past. P. 6—9. *Curt.* 337.

rep'tans. 2. T. Stem creeping, leaves petioled.
Creeping Tormentil. Woods. P. 6. 7. *Pet.* 41. 10.

637. DRY'AS. *Cal.* 5—10-cleft. *Pet.* 5—8. *Seeds* tailed, hairy.

octopet'ala. 1. D. Flow. 8-petalled, leaves simple.
Mountain Avens. High mount. P. 6—8. *E. Bot.* 451.

633. FRAGA'RIA. *Cal.* 10-cleft. *Pet.* 5. *Recept.* of the seeds ovate, berry-like, deciduous.

ves'ca. 1. F. Runners creeping.
Strawberry. Woods. P. 5. 6. *Blackw.* 77. 1. *Ger.* 997.

ster'ilis. 2. F. Stem decumbent, (runners none) flower-bearing branches flaccid (slender, with a few small leaves, petioles very hairy).
Barren Strawberry. Hedge-banks. P. 4. 5. *Curt.* 173.

634. POTENTIL'LA. *Cal.* 10-cleft. *Pet.* 5. *Seeds* roundish, naked, fixed on a small juiceless receptacle.

1. *Leaves pinnate.*

frutico'sa. 1. P. Leaves pinnate, stem shrubby.
Shrubby Cinquefoil. Bank of the Tees. S. 6. *E. B.* 88.

anseri'na. 2. P. Leaves pinnate, serrated, stem creeping, pedunc. 1-flowered.
Silver Weed. Road sides. P. 6. 7. *Curt.* 203.

rupes'tris. 3. P. Leaves pinnate and ternate, stem erect, runners 0. (Stem villous.)
— Sides of Craig Wreidhin, Montg. P. 7. *Ger.* 991.

2. *Leaves digitate.*

argen'tea. 4. P. Leaves quinate, (leaflets) cuneiform, incised, tomentous underneath, stem erect.
Silvery Cinquef. Pastures, &c. P. 6—9. *E. Bot.* 89.

al'ba. 5. P. Leaves quinate, conniventi-serrated at the point, stems filiform, procumbent, recept. hirsute.
White Cinquefoil. In Wales. P. 7. 8. *Ger.* 989.

6. P. Leaves quinate, stem creeping, pedunc. 1-flowered. *rep'tans.*

Obs. The stem strikes roots at the joints, it is thereby distinguished from Tormentilla *reptans*, which has a procumbent stem, but does not send out roots. AFZELIUS.

Com. Cinquefoil. Pastures, &c. P. 6—9. *Curt.*

7. P. Root-leaves quinate, acutely serrated, retuse, stem-leaves ternate, stem declining. *ver'na.*

Spring Cinquefoil. Rocky past. P. 4—6. *E.B.* 37.

8. P. Root-leaves quinate, serrated, acuminate, stem-leaves ternate, stem declining. P. *opaca.* Huds. *au'rea.*

— Pastures near Pontefr. Yorks. P. 7. 8. *F.D.* 114.

636. GE'UM. *Cal.* 10-cleft. *Pet.* 5. *Seeds* with a jointed awn.

1. G. Fl. erect, fruit globular, villous, awns hooked, naked, leaves lyrate (stem-leaves ternate). *urba'num.*

Common Avens. Woods, &c. P. 5—8. *Curt.* 113.

2. G. Flow. nodding, fruit oblong, awns feathered, twisted. (Pet. retuse, roundish, cuneiform, leaves winged. AITON.) *riva'le.*

Water Avens. Sides of rivers. P. 6. 7. *E. Bot.* 106.

Var. 2. Flowers large, yellow. With the hairy awns of G. *rivale*, habit, colour, and size of G. *urbanum.* SMITH.

638. COM'ARUM. *Cal.* 10-cleft. (Segm. alternately smaller.) *Pet.* 5, less than the calyx. *Recept.* of the seeds ovate, spongy, persisting.

1. COMARUM. *palus'tre.*

Marsh Cinquefoil. Boggy pl. P. 6, 7. *E. Bot.* 172.

CLASS XIII.

POLYANDRIA.

MONOGYNIA.

1. *Flowers 4-petalled.*

644. ACTÆ'A. *Cal.* 4-leaved. *Berry* 1-celled. *Seeds* in a double order.
647. CHELIDO'NIUM. *Cal.* 2-leaved. A *Silique.*
648. PAPA'VER. *Cal.* 2-leaved. *Caps.* 1-celled, crowned.

2. *Flowers 5-petalled.*

660. TIL'IA. *Caps.* 5-celled, coriaceous, 1-seeded. *Cal.* deciduous.
673. CIS'TUS. *Caps.* roundish, *Cal.* 5-leaved, 2 leaflets smaller.

(Delphinium Consolida.)

3. *Flowers many-petalled.*

653. NYMPHÆ'A. *Berry* many-celled, with a bark-like coat. *Cal.* large.

DIGYNIA.

(XXI. *Poterium.*)

TRIGYNIA.

681. DELPHIN'IUM. *Cal.* 0. *Cor.* 5-petalled, uppermost horn shaped. *Nect.* bifid, sessile.

(Chelidonium hybridum. XII. *Reseda Luteola.)*

TETRAGYNIA.

(XXI. *Myriophyllum.)*

PENTAGYNIA.

684. AQUILE'GIA. *Cal.* 0. *Cor.* 5-petalled. *Nect.* 5, horn-shaped below.

(Papaver Cambricum.)

HEXAGYNIA.

687. STRATIO'TES. *Cal.* 3-parted. *Cor.* 3-petalled. *Berry* 6-celled, within a spathe.

(Papaver Cambricum.)

POLYGYNIA.

696. CLEM'ATIS. *Cal.* 0. *Cor.* 4-petalled. *Seeds* numerous, awned.

697. THALIC'TRUM. *Cal.* 0. *Cor.* 4, or 5-petalled. *Seeds* numerous, somewhat awned, naked.

702. HELLEB'ORUS. *Cal.* 0. *Cor.* 5-petalled, persisting. *Nect.* numerous. *Caps.* many-seeded.

703. CAL'THA. *Cal.* 0. *Cor.* 5-petalled. *Caps.* many. *Nect.* 0.

694. ANEMO'NE. *Cal.* 0. *Cor.* 6-petalled. *Seeds* numerous.

700. TROL'LIUS. *Cal.* 0. *Cor.* 14-petalled. *Nect.* linear. *Caps.* many-seeded.

699. RANUN'CULUS. *Cal.* 5-leaved. *Cor.* 5-petalled. *Seeds* numerous. *Pet.* with a nectariferous claw.

698. ADO'NIS. *Cal.* 5-leaved. *Cor.* 5, or 10-petalled. *Seeds* many, angular, with a bark-like coat.

(Nymphæa alba. Papaver Somniferum. XX. *Zostera. Arum.)*

MONOGYNIA.

644. ACTÆ'A. *Cor.* 4-petalled. *Cal.* 4-leaved. *Berry* 1-celled. *Seeds* semi-circular.

1. A. Raceme ovate, fruit berry-like. *spica'tă.*
Herb Christopher. Woods. P. 5. 6. *F. Dan.* 498.

647. CHELIDO'NIUM. *Cor.* 4-petalled. *Cal.* 2-leaved. *Silique* 1-celled, linear.

ma'jus. 1. C. Peduncles umbellate.
Greater Celandine. Hedges. P. 5—7. *F. Dan.* 542.

Glau'cium. 2. C. Pedunc. 1-flowered, leaves embracing the stem, sinuated, stem smooth.
Yellow-horned Poppy. Sea shore. A. 7. 8. *E. Bot.* 8.

cornicula'tum. 3. C. Pedunc. 1-flowered, leaves sessile, pinnatifid, stem hispid.
Red Celandine. Sandy cornfields. A. 7. 8. *Curtis.*

hy'bridum. 4. C. Pedunc. 1-flowered, leaves pinnatifid, (segm.) linear, stem smooth, siliques 3-valved.
Violet Celandine. Sandy cornfi. A. 5. 6. *E. Bot.* 201.

648. PAPA'VER. *Cor.* 4-petalled. *Cal.* 2-leaved. *Caps.* 1-celled, opening with pores under the persisting stigma.

1. *Capsules hispid.*

hy'bridum. 1. P. Capsules nearly globular, protuberant, stem leafy, many-flowered.
Round rough-headed Poppy. Cornfi. A. 6. 7. *E.B.* 43.

Argemo'ne. 2. P. Caps. club-shaped, stem leafy, many-flowered. (Leaves many-cleft, segments reflected at the margin.)
Rough-podded Poppy. Cornfi. A. 6. 7. *Curt.* 313.

marit'imum. 3. P. Caps. nearly cylindrical, stem one-flowered. WITH.
—— Sea coast, at Weymouth, A. 6. 7. ——

2. *Capsules smooth.*

Rhœ'as. 4. P. Caps. globular (obovate), stem hairy, many-flowered, leaves pinnatifid, incised.
Corn Poppy. Cornfields. A. 6—8. *Curt.* 215.

du'bium. 5. P. Caps. oblong, smooth, stem many-flowered, with appressed bristles, leaves pinnatifid, incised.
Smooth-podded Poppy. Cornfields. A. 6. 7. *Curt.* 297.
Var. 2. *shaggy.* Whole plant very hairy, segm. of the leaves incised.—An intermediate plant between P. *Rhœas*, and *dubium*. See With.
—— Pastures, Isle of Wight. A. 6. *F. Dan.* 902.

somnif'erum. 6. P. Cal. and caps. smooth, leaves embracing the stem, incised.
White Poppy. Cornfields, &c. A. 6. 7. *Woodv.* 185.

cam'bricum. 7. P. Caps. oblong, stem many-flowered, smooth, leaves pinnate, incised.
Yellow Poppy. Mount. P. 6—8. *E. Bot.* 66.

660. TIL'IA. *Cor.* 5-petalled. *Cal.* 5-parted. *Berry (Caps.)* dry, globular, 5-celled, 5-valved, opening at the base.

1. T. Flow. destitute of a nectary. *europæ'a.*
Var. 1. β. Lin. sp. pl. Leaves cordate, serrated, fruit 4-celled. RAY syn. 473. 1.
Common Lime-tree. Woods. T. 7. *Hunt.* i. *p.* 194.
—— 2. γ. Lin. Leaves unequally serrated, fruit tomentous, 5-celled. Du Roi. RAY syn. 473. 2.
Small-leaved Linden-tree. Essex. *J. B.* i. 137.
—— 3. δ. Lin. Elm-leaved, seed (fruit) 6-cornered. DILL. in Ray syn. 473. 4.
—— At Whitstable in Surry, &c. ——
—— 4. ε. Lin. Leaves softly hirsute, twigs red, fruit 4-cornered. RAY syn. 473. β.
Red Lime. Stoken-church Wood. ——

Obs. It is now distinguished into T. *grandifolia*, and T. *parvifolia*. In the former, according to Schkuhr, the stam. are polyadelphous, and the lobes of the stigma converging; in the latter, the stam. unconnected, and the lobes of the stigma diverging.—In both the number of cells of the caps. varies. PERS.

673. CIS'TUS. *Cor.* 5-petalled. *Cal.* 5-leaved, 2 leaflets smaller. *Capsule* (1—10-celled, 3—10-valved. WITH.).

1. *Without stipules, somewhat shrubby.*

1. C. Leaves opposite, oblong, petioled, flat, hoary underneath. SP. PL. E. BOT. C. *anglicus*. Lin. Mant. and With. C. *hirsutus*. Huds. *marifo'lius.*
Hoary dwarf Cistus. On rocks. P. 5. 6. *E. Bot.* 396.

2. *Without stipules, herbaceous.*

2. C. Leaves opposite, lanceolate, 3-nerved, racemes without bractes. (Stem rough-haired, pedicels red, pet. yellow, with a red spot. SCHK.) *gutta'tus.*
Annual Cistus. Past. near Holyhead. A. 6. *Curt.*

3. *With stipules, herbaceous.*

3. C. Spreading, villous, flow. racemous, erect, pedicels horizontal. (Caps. longer than the calyx.) *sal'icifo'lius.*
Willow-leaved Cistus. Past. A. 6. 7. *Ger.* 1280. 17.

4. *With stipules, somewhat shrubby.*

4. C. Procumbent, stipules lanceolate, leaves ob- *Helian'-*

themum. long, revolute, rather hairy. (Pet. nearly circular.)
Dwarf Cistus. Mount. Pastures. P. 6—8. *Curtis.*

surreja'nus. 5. C. Procumbent, leaves ovato-oblong, rather hairy, pet. lanceolate. C. *Helianthemum* δ. Huds.
Nar.-petall. C. Near Croydon. S. 7. *Dill. el.* 145. 174.

polifo'lius. 6. C. Procumbent, leaves oblongo-ovate, hoary, calyx smooth, petals serrated. (Fl. white.)
Mountain C. Brean-Downs. P. 7. *Dill. elt.* 145. 172.

653. NYMPHÆ'A. *Cor.* many-petalled. *Cal.* 4, or 5-leaved. *Berry* many-celled, truncated.

lu'tea. 1. N. Leaves cordate, very entire, cal. 5-leaved, larger.
Yellow Water-lily. Pools, &c. P. 6—8. *E. Bot.* 159.

al'ba. 2. N. Leaves cordate, very entire, cal. 4-cleft (4-leaved).
White Water-lilly. Ponds, &c. P. 7. 8. *E. Bot.* 160.

TRIGYNIA.

681. DELPHIN'IUM. *Cal.* 0. *Pet.* 5 (or 6). *Nect.* bifid, horn-shaped behind. *Siliques* 3, or 1. (*Caps.* leguminous, mostly 3. GAERTN.)

Consol'ida. 1. D. 1-capsuled, nect. 1-leaved, stem subdivided. (Germen smooth.)
Wild Lark-spur. Cornfields. A. 6—9. *F. Dan.* 683.

PENTAGYNIA.

684. AQUILE'GIA. *Cal.* 0. *Pet.* 5. *Nect.* 5, corniculate, (alternate with) amongst the petals. *Caps.* 5, distinct.

vulga'ris. 1. A. Nectaries incurved (nearly equal to the pet.; all the leaflets petioled, lobes distant, roundish, rather obtuse. JACQ.)
Columbine. Woods, &c. P. 6. *E. Bot.* 297.

alpi'na ? 2. A. Nect. straight, shorter than the lanceolate petal. (Nect. curved, segm. of the leaves linear. HALLER.)
Mountain Columbine. Mount. woods in Westmorel.

Obs. Hudson always doubted whether the British plant was specifically distinct, and we are assured that he considered the true specimens of A. *alpina* from Mount Cenis, as quite different from any plant he had seen of British growth. See E. Bot.

687. STRATIO'TES. *Spathe* 2-leaved, *Perianth* 3-cleft (or 3-leaved). *Pet.* 3. *Berry* 6-celled, inferior.

1. S. Leaves ensiformi-triangular, ciliate with prickles. *Aloi'des.*
Fresh-water Soldier. Pits, &c. P. 6. 7. *E. Bot.* 379.

Obs. Lin. found all the flowers of the Swedish plants, which he examined, hermaphrodite, but informs us, that they were found dioicous in Germany by Bergen, Zinn, and Fabricius; and that Schreber observed the anthers to be barren in the herm. flowers.—The bodies, in the circumference of the flower, are considered as nectaries by Roth.

POLYGYNIA.

696. CLEM'ATIS. *Cal.* 0. *Pet.* 4, rarely 5, or 6. *Seeds* tailed. (*Styles* permanent. *Caps.* many, tailed. *Recept.* a knob. WITH.)

1. C. Leaves pinnate, leaflets cordate, climbing. *Vital'ba.*
Traveller's Joy. Hedges, &c. S. 7. 8. *Curt.* 244.

697. THALIC'TRUM. *Cal.* 0. *Pet.* 4 or 5. *Seeds* without tails. (*Caps.* many, rather beaked. WITH.)

1. T. Stem undivided, naked, raceme simple, terminating. (Stam. 8—12. Pist. 4—8.) *alpi'num.*
Mountain Rue-weed. Moist rocks. P. 6. *E. B.* 262.
2. T. Stem leafy, (leaflets acute, 3-cleft,) furrowed, panicle many-fold, erect. *fla'vum.*
Meadow Rueweed. Meadows. P. 6. *E. Bot.* 367.
Var. 2. Lobes of the leaves narrower and more wrinkled. LIGHTF. p. 285. *H. ox.* ix. 20. 3.
3. T. Leaves 6-parted, flow. cernuous. (Leaves tripinnate, leaflets 3-cleft, panicle large, expanding, flow. on crooked pedunc. WITH.) *mi'nus.*
Less Rue-weed. Meadows. P. 7. 8. *E. Bot.* 11.
4. T. Leaves many-parted, flow. cernuous, flower-bearing branches axillary, 2, or 3 together. (Leaves dark green above, glaucous underneath. JACQ.) *ma'jus.*
— M. mead. Yorksh. &c. P — *Jacq. Aust.* 420.

702. HELLEB'ORUS. *Cal.* 0. *Pet.* 5, or more. *Nect.* 2-lipped, tubular. *Caps.* many-seeded, rather erect.

1. H. Stem bifid, branches leafy, 2-flowered, *vir'idis.*

leaves digitate. (Stem many-flowered, flow. solitary, green, spreading. Pist. 3—5. Segm. of the leaves deeply serrated.)
Green Hellebore. Woods. P. 3—5. *Curt. E. Bot.* 200.

fœ'tidus. 2. H. Scape (stem) many-flowered, leafy; leaves pedate. (No leaves towards the root.) Flow. converging, green, purplish towards the points.
Bear's-foot. Meadows, &c. P. 4. *Woodv.* 19.

708. CAL'THA. *Cal.* 0. *Pet.* 5. *Nect.* 7. *Caps.* many, many-seeded.

palus'tris. 1. CALTHA.
Marsh Marigold. Moist meadows, &c. P. 4.5. *Curt.*

694. ANEMO'NE. *Cal.* (generally) 0. *Pet.* 6—9. *Seeds* numerous.

1. Pulsatillæ, *peduncle involucred, seeds tailed.*

praten'sis. 1. A. Petals reflected at the point, leaves bipinnate.
Dark-flowered Anemone. Pastures. P. 4. *Woodv.* 148.

Pulsatil'la. 2. A. Petals straight, leaves bipinnate (incised).
Pasque Flower. High past. P. 4. 5. *E. Bot.* 51.

2. Anemonoideæ, *flower naked, seeds without tails.*

nemoro'sa. 3. A. Seeds acute, leaflets incised. stem 1-flowered.
Wood Anemone. Woods. P. 4. 5. *Curt. E. Bot.* 355.

ranunculoi'des. 4. A. Seeds acute, leaflets incised, pet. roundish, stem mostly 2-flowered. (Pedunc. with 2 leaflets.)
Yellow Anemone. Hedges, &c. P. 5. *Ger.* 383. 1.
Var. 2. Stem flexuose at the base, 1-flowered, pedunc. naked, cor. 5-petalled. WITH. *F. Dan.* 140.

apenni'na. 5. A. Seeds acute, leaflets incised, petals lanceolate, numerous.
Mount. Anemone. Woods, &c. P. 4. *Curt.*

706. TROL'LIUS. *Cal.* 0. *Pet.* about 14. *Caps.* very numerous, ovate, many-seeded.

europæ'us. 1. T. Corol converging, nect. as long as the stam.
Globe Flower. Moist woods, &c. P. 5. 6. *E. Bot.* 28.

699. RANUN'CULUS. *Cal.* 5 (or 3) -leaved. *Pet.* 5, (2—8) with a melliferous pore (or scale) on the inside of the claws. *Seeds* naked.

1. *Leaves simple.*

Ficа'ria. 1. R. Leaves cordate, angular, petioled, stem 1-

flowered. (Cal. 3-leaved. Pet. 8.) Ficaria *verna*. Huds.
Common Pilewort. Meadows, &c. P. 4. *Curt*.

2. R. Leaves ovato-lanceolate, petioled, stem declining. *Flam'mula.*
Less Spearwort. Bogs, &c. P. 6—9. *Curt*.
Var. 2. β. Lin. sp. and Huds. Leaves serrated.
—— 3. γ. Huds. Leaf broader, resembling that of Plantago, hairy at the margin. Dill. in Ray syn. 251. *Pluk*. 312.

3. R. Leaves lanceolate, stem erect. *Lin'gua.*
Great Spearwort. Bogs. P. 6. 7. *E. Bot*. 100.
Obs. The flower very large, stem tomentous, leaves much longer in proportion to their breadth, and more pointed than in R. *Flammula*.

4. R. Leaves lanceolato-linear, undivided, stem erect, very smooth, few-flowered. (Flow. yellow, small, root tuberous.) *gramin'eus.*
—— North Wales. — *Bauh. hist*. iii. 866. 3.

5. R. Leaves linear, stem creeping.—(A var. of R. *Flammula?*) *rep'tans.*
Nar.-leaved C. Sides of lakes. P. 7. 8. *Lft*. i. *Front*.

2. *Leaves dissected, and divided.*

A. Not uniform.

6. R. Root-leaves reniform, crenate, incised, stem-leaves digitate, linear, stem many-flowered. *auric'omus.*
Goldilocks. Woods, &c. P. 4. 5. *Curt*.

7. R. Lower leaves palmate, higher digitate, fruit oblong. *scelera'tus.*
Round-leav. Water-crowfoot. Ditches. A. 5. 6. *Curt*.

8. R. Submersed leaves capillary, those above water peltate. *aquat'ilis.*
Water-crowfoot. Ponds. P. 5—7. *E. Bot*. 101.
Var. 2. *large-flowered*. None of the leaves capillary.
—— 3. *circinnatus*. β. Lin. δ. Huds. All the leaves capillary, outline roundish.
—— 4. *diffusus*. γ. Lin. β. Huds. All the leaves capillary, outline irregular. *Gerard* 679.
—— 5. *fluviatilis*. δ. Lin. γ. Huds. All the leaves capillary, segments very long, parallel. Hall. *F. Dan*. 376. See With.

9. R. Calyxes patulous, pedunc. cylindrical, leaves 3-parted, segm. many-cleft, upper leaves linear. *a'cris.*
Butter-cups. Pastures, &c. P. 6. 7. *Curt*.

Var. 2. Peduncles flatted, flowers smaller. WITH.

B. Uniform. *(aquatilis.)*

parvifloʹrus. 10. R. Seeds muricated (with hooked tubercles); leaves simple, laciniated, (segm.) acute, (toothed) hairy, stem diffuse.
Small-fl. Crowf. Cornfields, &c. A. 5.6. *E. Bot.* 120.

hederaʹceus. 11. R. Leaves roundish (or reniform), 3-lobed, very entire, stem creeping.
Ivy-leaved Crowf. Ditches. P. 6—8. *Curt.* 247.

bulboʹsus. 12. R. Cal. reflected, pedunc. furrowed, stem erect, many-flowered, leaves compound (root bulbous).
Bulbous Crowfoot. Meadows, &c. P. 5. *Curt.*

hirsuʹtus. 13. R. Root fibrous, stem hairy, calyx pimpled, hairy, acuminate, at length reflected. CURT.
—— Road sides, &c. A. 6—9. *Curt.*

reʹpens. 14. R. Cal. patulous, peduncles furrowed, stolons creeping, leaves compound.
Creeping Crowfoot. Meadows. P. 6—8. *Curt.* 211.

arvenʹsis. 15. R. Seeds prickly, upper leaves decompound, linear.
Corn Crowfoot. Cornfi. A. 6. *Mart.* 56. *E. Bot.* 135.

698. ADOʹNIS. *Cal.* 5-leaved. *Pet.* (5 or) more than 5, without a nect. *Seeds* naked.

æstivaʹlis. 1. A. Fl. 5-petalled, fruit ovate.
—— Cornfi. on Salisb. Plain. A. 5. 6. *Pet.* 39. 8.

autumnaʹlis. 2. A. Fl. 8-petalled (pet. obcordate), fruit nearly cylindrical.
Pheasant's-eye. Cornfi. A. 6. 7. *Curt.* 135. *E. B.* 308.

CLASS XIV.

DIDYNAMIA.

GYMNOSPERMIA.

1. *Calyxes mostly 5-cleft.*

722. LEONU'RUS. *Anth.* sprinkled with bony (shining) dots.

714. GLECO'MA. *Anth.* each pair forming a cross.

713. MEN'THA. *Filaments* distant, straight. *Cor.* nearly equal.

706. TEU'CRIUM. *Cor.* upper lip 0, but (the upper side of the tube) 2-parted.

705. A'JUGA. *Cor.* upper lip shorter than the stamens.

—— GALEOB'DOLON. *Cor.* upper lip entire, arched; lower lip 3-cleft; segments broad, acute. *Anth.* fleshy on the back. WITH. HUDS.

718. BETON'ICA. *Cor.* upper lip flat, ascending, tube cylindrical. *Stam.* as long as the mouth of the tube.

716. LAM'IUM. *Cor.* lower lip with a setaceous tooth on each side.

717. GALEOP'SIS. *Cor.* lower lip with 2 teeth above.

719. STA'CHYS. *Cor.* lower lip reflected at the sides. *Stam.* turned to the sides, when deflorate.

710. NEP'ETA. *Cor.* lower lip crenate. *Throat* with the margin reflected.

720. BALLO'TA. *Cal.* 10-striated. *Cor.* upper lip arched.

721. MARRU'BIUM. *Cal.* 10-striated. *Cor.* upper lip straight.

(II. *Verbena officinalis.* XIV. *Origanum. Melissa Nepeta.*)

2. *Calyxes 2-lipped.*

734. SCUTELLA'RIA. *Cal.* when in fruit covered with a lid.

727. THY'MUS. *Cal.* throat (small) closed with hairs.

735. PRUNEL'LA. *Filaments* all forked at the end.

726. ORIGA'NUM. *Strobile* collecting the calyxes. (Calyxes forming an imbricated cone. WITH.)

725. CLINOPO'DIUM. *Involucre* collecting the calyxes.

731. MELIT'TIS. *Cal.* larger than the tube of the corol. *Cor.* upper lip flat, entire. *Anth.* crossed.

728. MELIS'SA. *Cal.* angular, scariose, upper lip ascending.

(Teucrium.)

ANGIOSPERMIA.

1. *Calyxes bifid.*

779. OROBAN'CHE. *Caps.* 1-celled. *Cor.* nearly equal, 4-cleft. *Gland* under the base of the germen.

2. *Calyxes 4-cleft.*

743. LATHRÆ'A. *Caps.* 1-celled. *Cor.* personate. *Gland* under the germen.

739. BART'SIA. *Caps.* 2-celled. *Cor.* personate. *Cal.* coloured (not in our species).

741. EUPHRA'SIA. *Caps.* 2-celled. *Cor.* personate. *Anth.* lower with thorns on one lobe.

740. RHINAN'THUS. *Caps.* 2-celled. *Cor.* personate. *Caps.* compressed.

742. MELAMPY'RUM. *Caps.* 2-celled. *Cor.* personate. *Seeds* 2, gibbous.

3. *Calyxes 5-cleft.*

776. LIMOSEL'LA. *Caps.* 1-celled. *Cor.* campanulate, regular. *Seeds* numerous.

756. SCROPHULA'RIA. *Caps.* 2-celled. *Cor.* resupinate. *Lip* with the intermediate segment more inward.

775. SIBTHOR'PIA. *Caps.* 2-celled. *Cor.* rotate. *Stam.* 2 and 2, approximate.

758. DIGITA'LIS. *Caps.* 2-celled. *Cor.* campanulate, on the under side ventricose. *Stam.* declining.

750. ANTIRRHI'NUM. *Caps.* 2-celled. *Cor.* personate, with a prominent nectary underneath.

746. PEDICULA'RIS. *Caps.* 2-celled. *Cor.* personate. *Seeds* coated.

774. LINNÆ'A. *Berry* 3-celled, dry. *Cor.* campanulate. *Cal.* superior.

GYMNOSPERMIA.

722. LEONU'RUS. *Anth.* sprinkled with shining dots. (*Cal.* 5-cornered. *Cor.* upper lip shaggy, concave. E. Bot. Lower lip 3-cleft.)

1. L. Stem-leaves lanceolate, 3-lobed. *Cardi'aca.*
Motherwort. Hedges, &c. B. 6—8. *E. Bot.* 286.

Obs. The shining dots are not peculiar to this genus, and therefore do not sufficiently characterize it. They are met with, according to Batsch and Schkuhr, in several species of plants belonging to this order. See Persoon.

714. GLE'COMA. *Anth.* each pair in the form of a cross. *Cal.* 5-cleft.

1. G. Leaves reniform, crenate. *hederac'ea.*
Ground Ivy. Hedges, &c. P. 4. 5. *Curt.* 143.
Var. 2. *sepium.* Stem elongated, somewhat climbing, leaves reniform, smooth.
—— 3. *mutilata.* Smaller, without anthers. See Pers.
—— 4. β. Huds. Larger, more erect, and hirsute. *Vaill.* 6. 4. *Ger.* 704. 6.

713. MEN'THA. *Cor.* nearly equal, 4-cleft, the broadest segment emarginate. *Stam.* erect, distant.

1. *Flowers in spikes.*

1. M. Spikes oblong, leaves (whitish) oblong, serrated, tomentous, sessile, stam. longer than the corol. (Spikes oblong, with (long) bractes, leaves sessile, lanceolate, serrated, acute, tomentous, hoary (underneath), with *sylves'tris.*

reticulated veins, stam. shorter than the corol, smell goatish. M. *villosa prima*. Sole.) Menthastrum, &c. RAY syn. 234. 5.

Long-leav. Horse-m. Ditches. P. 7. *Sole* 1. *J. B.* iii. 222.

Obs. Hudson has observed the stam. of equal length with the corol. Mr. Sole has never found them longer. See Menthæ Britannicæ, an ingenious work lately published, in which the British species are well described, and admirably figured.

villo'sa. 2. M. Spike (spikes) oblong, leaves sessile, ovato-lanceolate, serrated, acute, villous, stam. shorter than the corol. HUDS. M. *villosa secunda*. Sole. M. spicata &c. DILL. in Ray 233. 2, and 234. 3. A var. of M. sylvestris?

Com. Horse-mint. Moist pl. P. 8. *Sole* 2. *Ger.* 684. 3.

Obs. The spikes are shorter, and more dense, the bractes capillary, indistinct, the leaves smoother above, villous underneath, the stem reddish, the odour resembling M. *viridis*. See Sole.

rotun'difo'lia. 3. M. Spikes oblong, leaves roundish, wrinkled, crenate, sessile. (Bractes lanceolate. E. BOT. 446.—Spikes oblong, leaves wrinkled, sessile, downy, crenato-dentate, lower ones oblong, obtuse, upper ones rounded, veins reticulated, stam. longer than the corol. M. *sylvestris*. Sole.) Menthastrum, &c. RAY syn. 234. 6.

Round-leav. M. Moist pl. P. 8. *Sole* 3. *J. B.* iii. 219.

Var. 2. Leaf curled, partly white, partly ash-coloured, or greenish. β. Sole. *Ger.* 684. 4.

alopecu'roi'des. 4. M. Spikes oblong, dense, bractes long, filiform, flow. red, leaves sessile, roundish, wrinkled, toothed, villous, nerves transverse, veins reticulated, stam. as long as the corol, stem erect, hirsute, odour resembling M. *viridis*. M. *rotundifolia*. Sole.

Fox-tailed M. Moist places. P. 8. *Sole* 4. *Ger.* 681.

Obs. The capillary bractes are so much longer than the flowers, as to make the spike resemble a fox's tail. From this circumstance the spec. name *alopecuroides* has been chosen, a new name being necessary, after restoring to the former species the name given it by Lin. The same liberty has been taken with some of the names, which consist of two words, used by Mr. Sole.

vir'idis. 5. M. Spikes oblong, leaves lanceolate, naked, serrated, sessile, stam. longer than the corol. LIN. SOLE. M. angustifolia &c. RAY hist. i. 532.

Spear-mint. Watery pl. P. 8. *Sole* 5. *Ger.* 680. 3.

Obs. When cultivated the leaves vary in breadth.

6. M. Spikes oblong, interrupted, leaves broad, ovate, acute, serrated, hirsute, lower ones oblong, nerves reddish, stam. shorter than the corol, stem erect, hirsute, smell goatish. Sole. M. *sylvestris* β. Huds. Menthastri &c. Ray syn. 234. 4. *palus'tris.*

Marsh-mint. Ditches. P. 9. *Sole* 6. *Ger.* 685. 5.

7. M. Spikes oblong, interrupted, leaves lanceolate, smoother, finely serrated, petioled, stam. as long as the corol, stem erect, brown, odour very grateful, like pepper. Sole. M. *piperita* var. 2. With. *cina'*

True Pepper-m. Moist pl. P. 8. *Sole* 7. *Pet.* 13. 10.

Obs. This species is named M. *piperita officinalis* by Mr. Sole.

8. M. Spikes oblong, broader, interrupted, leaves broad, ovate, acute, petioled, serrated, somewhat hirsute, nerves white, stem erect, rigid, somewhat branched, whitish red, stam. shorter than the corol, odour like pepper. Sole. *hirci'na,*

Savage Pepper-m. Watery places. 9. *Sole* 24.

Obs. This species differs from the preceding one in being much larger and coarser, and having a disagreeable goatish smell of Pepper-mint. It is named M. *piperita sylvestris* by Mr. Sole.

2. *Flowers in heads.* (Sisymbria.)

9. M. Flow. capitate, leaves ovate, petioled, stam. shorter than the corol. (Stem and branches flexuose.) Lin. Huds. With. M. *piperita vulgaris.* Sole. Mentha &c. Ray syn. 234. 7. *piperi'ta.*

Com. Pepper-m. Watery pl. P. 9. *Sole* 8. *Pet.* 13. 11.

10. M. Flow. capitate, leaves ovate, serrated, smoother, petioled, nerves branched, red, stem red, smoother, stam. shorter than the corol, smell very agreeable. Sole. M. *aquatica* γ. Huds. Mentha &c. Dill. in Ray 233. 8. *odora'ta.*

Bergamot-m. Moist places. P. 7. *Sole* 9. *Ray* 10. 1.

11. M. Flow. capitate, leaves ovate (or cordate), serrated, somewhat sessile (lower ones on short petioles, upper ones sessile), pubescent, stam. longer than the corol. Syst. veg. With. E. Bot. M. *aquatica minor.* Sole. M. *aquatica* β. & γ. Huds. Sisymbrium &c. Ray syn. 233. 7. *hirsu'ta.*

Small Water-m. Moist pl. P. 8. *Sole* 10. *J. B.* iii. 224.

12. M. Flow. capitate, leaves ovate, serrated, petioled, stam. longer than the corol. Syst. *aquat'ica.*

veg. Huds. With. Ray syn. 233. 6. M. *aquatica major.* Sole.

Great Water-m. Watery pl. P. 8. *Sole* 11. *Ger.* 684. 1.

tomento'sa. 13. M. Spikes glomerate, stem erect, villous, unbranched, leaves cordato-ovate, serrated, petioled, hoary, softer, stam. shorter than the corol, odour aromatic. Sole.

Hoary Water-mint. Swampy places. — 9. ——

Obs. This is in its appearance so totally different from the two preceding species, that Mr. Sole thinks it may with propriety be made a distinct Mint. He has given it the name of M. *aquatica tomentosa*, but has not figured it.

3. *Flowers in vertitils.*

arven'sis. 14. M. Flow. verticillate, leaves ovate, acute, serrated, stam. as long as (or shorter than) the corols. Syst. veg. Sole. Stems diffuse. Huds. Mentha &c. Ray syn. 232. 1. Dill. in R. 232. 2.

Corn-mint. Cornfields. P. 7. *Sole* 12. *Ger.* 684. 2.

Var. 2. Erect, leaves (smoothish) narrow, stem reddish, odour agreeable. β. Sole. *Blackw.* 131.

—— 3. *Larger.* Verticils and flow. large, leaves (ovate) broader, stam. longer than the corol, odour agreeable. γ. Sole.

præ'cox. 15. M. Flow. verticillate, stem erect, nearly naked, whitish, branches shorter, erect, leaves ellipti-co-lanceolate, petioled, serrated, smoother, nerves white, stam. shorter than the corol, odour like Acorus *Calamus.* Sole. M. *austriaca.* Jacq.?

Early-flow. M. Banks of rivers. — 6. *Sole* 13.

agres'tis. 16. M. Flow. verticillate (cal. hairy), stem erect, hirsute, branched, leaves petioled, curled, wrinkled, serrated, villous, roundish, stam. shorter than the corol, odour aromatic. Sole. M. *arvensis* β. Huds. M. arvensis &c. Ray syn. 232. 3.

Field-mint. Cornfields. P. 7. *Sole* 14.

gen'tilis. 17. M. Flow. verticillate, leaves ovate, acute, serrated, stam. shorter than the corol. Lin. With. E. Bot. (Flow. verticillate, bractes (upper leaves) long, acuminate, sessile, stem erect, branched, brown, (lower) leaves oblongo-lanceolate, somewhat petioled, serrated, smoother, nerves brown, stam. shorter than the corol, odour like Basil. Sole.) M. *rubra* α. gentilis. Huds.

Cardiac Mint. Rubbish. P. 7. *Sole* 15. *Ger.* 680. 4.

Obs. The leaves ovato-lanceolate, acute, nearly sessile, scarcely hairy, pedunc. perfectly smooth, calyx-teeth hairy. E. Bot. 449.

18. M. Flow. verticillate, verticils fewer, smaller, leaves petioled, ovato-lanceolate, serrated, rather hirsute, nerves white, hairy, stem erect, hairy, somewhat shrubby, whitish red, rather branched, branches short, erect, stam. shorter than the corol, odour agreeable. Sole. M. rubra vulgaris. Hill. B. Herbal. 352. *grac'ilis.*
Slender Mint. Banks of rivers. — 8. *Sole* 16.

Obs. The bractes, or upper leaves are petioled, and broader than in M. *gentilis.*

19. M. Flow. verticillate, vertic. fuller, smaller, leaves oval, obtuse, finely serrated, somewhat petioled, wrinkled, rigid, hirsute, stem-leaves dependent, stem hirsute, erect, branched above, simple below, pale greenish brown, flow. purplish blue, stam. shorter than the corol, odour resembling pepper-mint. Sole. *praten'sis.*
Meadow-mint. Moist places. — 8. *Sole* 17.

20. M. Flow. verticillate, stems herbaceous, diffuse, smoothish, red, leaves ovate, acute, serrated, petioled (petioles short), stam. shorter than the corol, odour agreeable. Sole. M. fusca. Ray syn. 232. 5. *ru'bra.*
Com. Red-mint. Brooks. — 7. *Sole* 18. *Park.* 31.

Obs. M. *rubra*, *gentilis*, and *gracilis*, are all included under *rubra* by Huds., but Mr. Sole, having found them distinct after 20 years cultivation, has been induced to give them as three distinct species.

21. M. Vertic. lateral, (all) peduncled, leaves petioled, ovate, acute, serrated, variegated, pubescent, stem erect, red, smoother, somewhat branched, stam. shorter than the corol, odour agreeable. Sole. *variega'ta.*
Window-w. Waste pl. P. 8. *Sole* 19. *H. ox.* xi. 7. 5.

22. M. Vertic. lateral, sometimes peduncled (lower peduncled, upper sessile), stem erect, branched, hirsute, reddish, leaves broad, ovate, acuminate, petioled, finely serrated, smoother above, villous underneath, nerves stronger, branched, stam. longer than the corol, odour disagreeable, like M. *sativa.* Sole. See Ray syn. 232. 4. the hirsute plant. *riva'lis.*
Brook-mint. Brooks. — 8. *Sole* 20.

Var. 2. With the habit, and smell of Calamint. β. Sole.

— Var. 3. Lower leaves rounder, upper concave

(ovate), stem branched below, simple above, stam. shorter than the corol; odour like Lemon Thyme. γ. Sole.

—— 4. Leaves smaller, rounder, hoary, stem branched, branches erect, longer, villous, reddish, smell like Marum. δ. Sole.

sati'va. 23. M. Flow. verticillate, (stem erect, somewhat flexuose above) leaves ovate, rather acute, serrated, stam. longer than the corol. Lin. Huds. E. Bot. Sole. M. *arvensis* var. 2. With. M. verticillata. Ray syn. 232. 4.

Tall Red-m. Banks of riv. P. 8. 9. *Sole* 21. *Ger.* 680. 1.

Obs. The leaves on winged petioles, pubescent, pedunc. and calyx hairy. See E. Bot. 448.

paludo'sa. 24. M. Spike capitato-verticillate, leaves oblong, crenate, petioled, downy, nerves red, stem erect, somewhat branched, villous, reddish, stam. as long as the corol, odour very fragrant. Sole.

Fen-mint. Fens. — 9. *Sole* 22.

Obs. The stem is terminated by a round head of flow. in no other species of verticillate Mints. Sole.

Pule'gium. 25. M. Flow. verticillate, leaves ovate, obtuse, somewhat crenate, stems rather cylindrical, creeping, stam. longer than the corol. Lin. Huds. With. Sole.

Penny-royal. Heaths. P. 8. 9. *Sole* 23. *Woodv.* 171.

706. Teu'crium. *Cor.* upper lip (none, tube on the upper side) 2-parted beyond the base, stamens between the diverging segments.

Chamæ'drys. 1. T. Leaves cuneiformi-ovate, incised, crenate, petioled, flow. 3 together, stems procumbent, rather hairy.

Com. Germander. Cornfields. P. 6. 7. *Woodv.* 243.

Scorodo'nia. 2. T. Leaves cordate, serrated, petioled, racemes lateral, one-rowed, stem erect. (Cor. white, filam. purplish.)

Wood-sage. Woods, &c. P. 7. *Curt.* 295.

Scor'dium. 3. T. Leaves oblong, sessile, dentato-serrated, flow. in pairs, axillary, peduncled, stem diffuse (pubescent).

Water Germander. Marshes. P. 7. 8. *Woodv.* 57.

Chamæ'pithys. 4. T. Leaves trifid, linear, very entire, flow. sessile, lateral, solitary, stem diffuse. See Ajuga *Chamæpithys.*

705. A'juga. *Cor.* upper lip very small. *Stam.* longer than the upper lip.

1. A. Pyramidal with 4 sides, villous, root-leaves very large. *pyramida'lis.*
—— Ben Nevis, &c. B.— *F. Dan.* 185.

2. A. Smooth (or hirsute), with creeping stolons. *rep'tans.*
Com. Bugle. Moist past. &c. P. 5—9. *Curt.*

3. A. Leaves 3-cleft, linear, very entire, flow. sessile, lateral, solitary, stem diffuse. E. Bot. With. Schr. Teucr. *Chamæpithys* Lin. Huds. *Chamæ'pithys.*
Ground Pine Germander. Fallow fi. A. 4. 6. *E. B.* 77.

4. A. Stem simple, stem-leaves as large as the root-leaves (almost smooth, irregularly toothed, verticils not crowded, many-flowered. E. Bot.). A. *pyramidalis* Huds. A. *genevensis* With. *alpi'na.*
Alpine Bugle. Near Castleton! — 7. *E. Bot.* 477.

Obs. A. *genevensis* is thus described by Lin. "Leaves tomentous, streaked, calyxes hirsute." It is believed by Ger. and others to be a var. of A. *pyramidalis*, and of A. *reptans* by Haller.—The British plant is distinguished from A. *pyramidalis*, by the root-leaves not being larger than those of the stem, and by its leaves and verticils not assuming a pyramidal form; and Dr. Smith has no doubt of its being A. *alpina*, from comparing it with the description, and numerous specimens. See E. Bot. P. 477.

—— Galeob'dolon. *Cor.* upper lip entire, arched, lower lip without teeth, 3-cleft, segments broad, acuminate. *Anth.* fleshy on the back. Huds. With.

1. Galeobdolon. See Huds. Galeopsis *Galeobdolon.* Lin. Pollichia *Galeobdolon* Gmel. *lu'teum.*
Yellow Archangel. Shady places. P. 5. *Curt.* 223.

718. Beton'ica. *Cal.* awned. *Cor.* upper lip ascending, flattish, tube cylindrical.

1. B. Spike interrupted, middle segment of the (lower) lip emarginate. *officina'lis.*
Wood Betony. Woods, &c. P. 7. 8. *Curt.* 154.
Var. 2. Spike entire, or very nearly so.

716. La'mium. *Cor.* upper lip entire, arched, lower lip 2-lobed, throat with a tooth on each side.

1. L. Leaves cordate, acuminate, serrated, petioled, verticils 20-flowered. *al'bum.*
White Archangel. Ditch-banks. P. 5. 6. *Curt.* 115.

2. L. Leaves cordate, obtuse, petioled. *purpu'reum.*
Red Archangel. Rubbish, &c. A. 4—9. *Curt.*

dissec'tum. 3. Leaves deeply and irregularly cut, stem-leaves extending down the petioles. WITH. L. *purp.* β. H. —— Kitchen gardens. A. 4—9. *Pet.* 33. 3.

amplexicau'le. 4. L. Floral leaves sessile, embracing the stem, obtuse. (Teeth of the corol indistinct. PERS.) Pollichia *amplexicaulis* GMELIN.
Great Henbit. Sandy cornfi. A. 2—8. *Curt.* 109.

717. GALEOP'SIS. *Cor.* upper lip somewhat crenate, arched, lower lip 2-toothed above.

La'danum. 1. G. Stem-internodes equal, all the verticils remote, calyxes not thorny. (Teeth longer, lineari-setaceous, diverging. WITH.)
Red Dead-Nettle. Cornfields. A. 9. *Pet.* 33. 11.

grandiflo'ra. 2. G. All the verticils remote, calyxes tubular, very hairy, teeth lanceolate, acuminate, short, straight. WITH. G. *villosa.* Huds. with the following char. "Internodes of the stem equal, verticils remote, leaves lanceolate, serrated, villous."
Hairy Dead-Nettle. Sandy cornfi. A. 7. 8. *Pet.* 33. 10.

Tet'rahit. 3. G. Stem-internodes thicker above, higher verticils somewhat contiguous, cal. rather pungent.
Com. Dead-Nettle. Hedge-banks. A. 7. 8. *E. Bot.* 207.
Var. 2. Flow. white, large, elegant. DILL. in Ray syn. 240. 8. Var. γ. Huds.
—— 3. Terminating flow. hypocrateriform, cor. 4-cleft, stam. 4 equal. See E. Bot. 267.

cannabi'na. 4. G. Upper verticils contiguous, calyx tubular, teeth unequal, 3 larger, 2 shorter, linear. (Cal. purplish red, cor. about an inch long, yellow, middle segment of the lower lip purple.) WITH. G. *Tetrahit* γ. Lin. δ. Huds. Ray syn. 241. 9.
Fair-flow: Nettle-hemp. Hedges. A. 7. 8. *Pluk.* 41. 4.

Galeob'dolon. 5. G. Verticils 6-flowered, invol. 4-leaved. See Galeobdolon *luteum.* Page 131.

719. STA'CHYS. *Cor.* upper lip arched, lower lip reflected at the sides, the intermediate segm. larger, emarginate. *Stam.* when deflorate, (diverging) turned towards the sides.

sylvat'ica. 1. S. Verticils 6-flowered, leaves cordate, petioled.
Hedge Stachys. Hedges, &c. P. 7. 8. *Curt.* 183.
Var. 2. Leaves angular. WITH. Hedges. P. 7. 8.
—— 3. β. Huds. Smaller. Leaf angular.

palus'tris. 2. S. Verticils about 6-flowered, leaves lineari-lanceolate, half embracing the stem, sessile.
Clown's All-heal. Watery places. P. 8. *Curt.* 248.

arven'sis. 3. S. Verticils 6-flowered, leaves obtuse, nearly

naked, cor. as long as the calyx, stem feeble. (Middle segm. of the lower lip not emarginate.)
Corn Stachys. Cornfields. A. 6—8. *Curt.* 246.

4. S. Verticils many-flowered, serratures of the leaves imbricated, stem woolly. *germanica.*
Base Horehound. Hedges. P. 7. *F. Dan.* 684.

710. NEP'ETA. *Cor.* middle segment of the under lip crenate, throat with the margin reflected. *Stam.* approximate.

1. N. Flow. spiked, verticils somewhat pedicelled, leaves petioled, cordate, dentato-serrated. *Cataria.*
Cat-mint. Hedges, &c. P. 7. *E. Bot.* 137.

720. BALLO'TA. *Cal.* hypocrateriform (nearly), 5-toothed, 10-striated. *Cor.* upper lip crenate, concave.

1. B. Leaves cordate, undivided, serrated, calyxes acuminate. *nigra.*
Stinking Horehound. Rubbish. P. 7. 8. *E. Bot.* 46.
Var. 2. β. Huds. Flow. white. Not B. *alba* Lin. WITH.

721. MARRU'BIUM. *Cal.* hypocrateriform, rigid, 10-striated. *Cor.* upper lip bifid, linear, straight.

1. *Calyx* 10-toothed.

1. M. Calyx-teeth (10) setaceous, hooked. *vulgare.*
White Horehound. Road sides. P. 7—9. *E. B.* 410.

734. SCUTELLA'RIA. *Cal.* mouth entire, closed after flowering, covered with a lid.

1. S. Leaves cordato-lanceolate, crenate, flow. axillary. *galericulata.*
Blue Skullcap. Banks of rivers. P. 8. *Curt.* 155.

2. S. Leaves cordato-ovate, almost entire (one-toothed on each side at the base), flow. axillary. (Stem procumbent, or creeping, cor. lower lip pinky white, spotted within.) *minor.*
Less Skullcap. Heaths, &c. P. 7. 8. *Curt.* 283.

727. THY'MUS. *Cal.* 2-lipped, the throat closed with hairs.

1. T. Fl. capitate, stems creeping, leaves flat, obtuse, ciliate at the base. *Serpyllum.*
Mother of Thyme. Mount. places. P. 7. 8. *Curt.*

Var. 2. β. Huds. Flower white. RAY syn. 230. 1.
—— 3. γ. Huds. Flow. large. RAY syn. 230. 2. *Pet.* 31. 2.
—— 4. β. Lin. δ. Huds. Leaves broad. DILL. in Ray 231. 3. *Ger.* 573. 7.
—— 5. ε. Lin. ε. Huds. With the smell of lemon-peel. RAY syn. 231. 4. *Ger.* 571. 7.
—— 6. ζ. Huds. Narrow-leaved, smooth. DILL. in R. 231. 5. *Woodv.* 110.
—— 7. η. Huds. Hirsute. RAY syn. 231. 6. *Vaill.* 32. 6.
—— 8. ϑ. Huds. Shrubby, hairy, cor. red. RAY syn. 231. 7.
—— 9. Scentless, hairy, small, creeping. DILL. in R. syn. 231. 8. — Ireland. BONAVERT. See With.

Obs. The stam. also vary in length, being in some longer than the corol, in others shorter, the former var. is named *exserens*, the latter *includens* by Ehrhart.

A'cinos. 2. T. Flow. verticillate, pedunc. 1-flowered, stems erect (ascending) rather branched, leaves acute, serrated.
Corn Basil. Dry hills. P. 6—8. *Curt.*

735. PRUNEL'LA. *Filaments* 2-forked, one point anther-bearing. *Stigma* bifid.

vulga'ris. 1. P. All the leaves ovato-oblong, serrated, petioled.
Common Self-heal. Pastures, &c. P. 8. *Curt.* 229.

726. ORIG'ANUM. *Strobile* 4-sided, spiked, collecting the calyxes. (*Flow.* forming a four-sided spike-like *cone.* WITH.)

vulga're. 1. O. Spikes roundish panicled, conglomerate, bractes ovate, longer than the calyx.
Wild Marjoram. Hedges, &c. P. 7. *Curt.* 358.

Oni'tes? 2. O. Spikes oblong, aggregate, hirsute, leaves cordate, tomentous. O. *vulgare.* var. 2. With.
Pot Marjoram. Dry meadows. P. 8. *Ger.* 664. 2.

Obs. O. *Onites* is inserted here on the authority of Dill. in Ray's syn. 236. 2., and Huds.—It seems however very doubtful, whether the British plant be more than a var. of *vulgare*, in which light it is viewed by With.—Lin. gives a reference to Huds., but the reference to Bauh. pin. has a note of interrogation annexed to it. The habitat assigned by Lin. is Syracuse, and he adds the following distinctive marks, "The habit of Majorana, but woody. Stems with long patulous hairs. Leaves small, cordate, nearly sessile, acute, rarely serrated, tomentous on both sides, from their axillæ the rudiments of branches. Spikes heaped together

as in Maj. but oblong, villous, 3 together on each pedunc., the intermediate one sessile. Flow. white." Sp. pl.

725. CLINOPO'DIUM. *Involucre* many-bristled, under the verticil.

1. C. Heads roundish, hispid, bractes setaceous. *vulga're.*
Wild Basil. Meadows, &c. P. 7. *F. Dan.* 930.

731. MELIT'TIS. *Cal.* larger than the tube of the corol. *Cor.* upper lip flat, lower lip crenate. *Anthers* forming a cross.

1. MELITTIS. *Melissophyl'lum.*
Bastard Balm. Hedges, &c. P. 6. *Curt.*

728. MELIS'SA. *Cal.* dry, flattish above, upper lip nearly fastigiate (expanding and reflected. WITH.). *Cor.* upper lip somewhat arched, bifid, lower lip with the middle lobe cordate.

1. M. Peduncles axillary, dichotomous, as long as the leaves. (Stem erect.) *Calamin'tha.*
Mount. Calamint. Road sides. P. 6—8. *Ger.* 687. 3.
2. M. Pedunc. axillary, dichotomous, longer than the leaves, stem ascending, hirsute. *Nep'eta.*
Field Calamint. Road sides, &c. P. 8. *Curt.*

ANGIOSPERMIA.

779. OROBAN'CHE. *Cal.* bifid. *Cor.* ringent. *Caps.* 1-celled, 2-valved, many-seeded. A *Gland* under the base of the germ.

1. *Corols 4-cleft.*

1. O. Stem very simple, cor. 4-cleft, inflated, stam. naked below, stigma 2-lobed, lobes distant, styles pubescent above. SUTTON. (Cor. upper lip undivided, lower equally trifid. E. BOT.) CURT. WITH.—Not of Lin.? *ma'jor.*
Broom-rape. Uncultivated pl. P. 5. 6. *Curt.* 232.
2. O. Stem very simple, cor. 4-cleft, stam. hairy below, stigma obcordate, style smooth above. SUTTON. *ela'tior.*
— In clover-fields. P. 7. 8. *Lin. Tr.* iv. pl. 17.
3. O. Stem very simple, cor. 4-cleft, stam. hairy below, stigma retuse, style smooth above. SUTT. (Stem simple, cor. tubular, upper lip undivided, lower in 3 curled segm., the mid- *mi'nor.*

dle one lobed, stam. ciliate, style smooth. E. Bot.) O. *ramosa*. β. Huds.

Less Broom-rape. In clover-fi. P. or B. 7. 8. *E. B.* 422.

2. *Corols 5-cleft.*

cæru'lea. 4. O. Stem mostly simple, cor. 5-cleft, bractes 3 together, cal. tubular, half 4-cleft. Sutt. (Stem simple, cor. tubular, upper lip cloven, and emarginate, lower in 3 equal entire segm., stam. smooth, bractes 3. E. Bot.) O. *ramosa*. var. 2. With.

Purple Broom-rape. In pastures. P. 7. *E. Bot.* 423.

ramo'sa. 5. O. Stem branched, cor. 5-cleft, bractes 3 together, cal. short, 4-parted. Sutt. (Bractes 3, 1 large external, 2 small internal. E. Bot. 423.) Lin. Huds. With.

Branched Broom-r. In hemp-fields. A. 8. 9. *E. B.* 184.

Obs. The above arrangement, and descriptions of the British species of Orobanche are taken from a very interesting paper in the Lin. Tr. vol. iv. by the Rev. C. Sutton; to which I must beg leave to refer my readers.

743. Lathræ'a. *Cal.* 4 (or 5)-cleft. A depressed *Gland* at the base of the suture of the germ. *Caps.* 1-celled.

Squama'ria. 1. L. Stem undivided, corols pendulous, lower lip 3-cleft.

Great Toothwort. Shady places. P. 4. 5. *E. Bot.* 50.

739. Bart'sia. *Cal.* 2-lobed, emarginate, coloured. *Cor.* (sometimes) less coloured than the calyx, upper lip longer. *Caps.* 2-celled.

visco'sa. 1. B. Upper leaves alternate, serrated, flow. distant, lateral.

Viscous Bartsia. Marshes, &c. A. 7. 8. *Lightf.* 14.

alpi'na. 2. B. Leaves opposite, cordate, obtusely serrated. (Cal. 4-cleft, cor. upper lip emarginate, lower 3 lobed, anth. very hairy. Oeder.)

Alpine Bartsia. Banks of rivers. P. 9. *E. Bot.* 361.

Odonti'tes. 3. B. Upper leaves alternate, lanceolate, serrated, flow. racemous, 1-rowed. Huds. Euphrasia *odontites*. Lin. See Euphrasia.

741. Euphra'sia. *Cal.* 4-cleft, cylindrical. *Caps.* 2-celled, ovato-oblong. *Anth.* lower lobe of the lower ones thorny at the base (ending in a thorny point).

officina'lis. 1. E. Leaves ovate, streaked, finely toothed.

Com. *Eye-bright.* Dry pastures. A. 6—9. *Curt.* 335.

2. E. Leaves linear, all serrated. *Odontites.*
Red Eyebright. Pastures, &c. A. 7—9. *Curt.*

Obs. It neither agrees in generic character with Rattsia, nor Euphrasia. Afzelius would therefore form a new genus for this plant, and B. *alpina*, with which he thinks it does agree. See With.

740. RHINAN'THUS. *Cal.* 4-cleft, ventricose. *Caps.* 2-celled, obtuse, compressed.

1. R. Upper lip of the cor. compressed, shorter. *Crista-gal'li.*
Yellow Rattle. Meadows. A. 6. 7. *Curt.* 320.

Var. 2. β. Lin. Huds. 2. With. Larger, narrow-leaved, flower smaller, yellow, lip purple. DILL. in Ray syn. 284. 2.

Obs. Ehrhart has divided this species into two;
1. R. *major.* Stem spotted, pistil projecting, coloured. *Curt.*
2. R. *minor.* Calyxes smooth, pistil included. See Persoon.

742. MELAMPY'RUM. *Cal.* 4-cleft. *Cor.* upper lip compressed, margin folded back. *Caps.* 2-celled, oblique, opening on one side. *Seeds* 2, gibbous.

1. M. Spikes quadrangular; bractes cordate, compact, denticulate, imbricated. *crista'tum.*
Crested Cow-wheat. Woods. A. 6. 7. *E. Bot.* 41.
2. M. Spikes conical, loose, bractes with setaceous teeth, coloured. *arven'se.*
Purple Cow-wheat. Cornfields. A. 7. *E. Bot.* 53.
3. M. Flowers lateral, one-rowed, leaves in distant pairs (toothed at the base), corols closed. *praten'se.*
Meadow Cow-wheat. Woods. A. 7. 8. *E. Bot.* 113.
4. M. Flowers (smaller) one-rowed, lateral, leaves in distant pairs (all of them entire), corols gaping. *sylvat'icum.*
Yellow Cow-w. Alpine woods. A. 6—8. *F. D.* 145.

776. LIMOSEL'LA. *Cal.* 5-cleft. *Cor.* 5-cleft, equal. *Stam.* in approximate pairs. *Caps.* 1-celled, 2-valved, many-seeded.

1. L. Leaves lanceolate (spatulate). *aquat'ica.*
Bastard Plantain. Watery pl. A. 7—9. *E. B.* 357.

756. SCROPHULA'RIA. *Cal.* 5-cleft. *Cor.* somewhat globular, resupinate. *Caps.* 2-celled.

1. S. Leaves cordate, doubly serrated, raceme compound, interspersed with leaves. *Scorodo'nia.*
Balm-leaved Figwort. Watery pl. P. 7. 8. *Pet.* 35. 11.

nodo'sa. 2. S. Leaves cordate (or ovate), 3-nerved, stem with (somewhat) obtuse angles.
Great Figwort. Moist hedges. P. 7. *Ger.* 716. 1.

aquat'ica. 3. S. Leaves cordate, obtuse, petioled, decurrent, angles of the stem membranous, racemes terminating.
Water Figwort. Watery places. P. 7. 8. *Curt.* 291.

verna'lis. 4. S. Leaves cordate, stem-leaves 3 together, peduncles axillary, solitary, bifid.
Yellow Figw. Watery places. B. 4. 5. *F. Dan.* 411.

775. SIBTHOR'PIA. *Cal.* 5-parted. *Cor.* 5-parted, equal. *Stam.* in distant pairs. *Caps.* compressed, orbicular, 2-celled, dissepiment transverse.

europæ'a. 1. S. Leaves reniform, somewhat peltate, crenate.
Bastard Moneywort. Marshy pl. P. 7—9. *Pet.* 6. 11.

758. DIGITA'LIS. *Cal.* 5-parted. *Cor.* campanlate, 5-cleft, ventricose. *Caps.* ovate, 2-celled.

purpu'rea. 1. D. Calyx-leaflets ovate, acute, corols obtuse, upper lip entire.
Com. Foxglove. Hedge-banks. B. 6. 7. *Curtis.*

750. ANTIRRHI'NUM. *Cal.* 5-leaved. *Cor.* base projecting downwards, nectariferous. *Caps.* 2-celled.

1. *Leaves angular,*

Cymbala'ria. 1. A. Leaves cordate, 5-lobed, alternate, stems procumbent. (Seeds wrinkled.)
Ivy-leaved Snapdragon. Old walls. P. 6—10. *Curt.*
Var. 2. Fl. regular, 5-cleft, spurs 5, as in Peloria. MURRAY.

Elat'ine. 2. A. Leaves hastate, alternate, stems procumbent.
Sharp-pointed Toad-flax. Cornfi. A. 8—10. *Curt.*
Var. 2. Fl. regular, 5-cleft, spurs 3, 4, or 5, as in Peloria. HUDS.

spu'rium. 3. A. Leaves ovate, alternate, stems procumbent. (Flow. incurved.)
Round-leaved Fluellin. Cornfi. A. 7—9. *Curt.* 205.
Var. 2. Fl. regular, &c. as in the preceding sp. HUDS.

2. *Leaves opposite.*

monspessula'num. 4. A. Leaves linear, crowded. stem shining, panicled, peduncles shining, spiked. A. *repens.* α. Huds.

Sweet-smelling S. Hedges. P. 7—9. *J. Bauh.* iii. 459. 1.

5. A. Many of the leaves alternate (only the three lowest pairs opposite), lanceolate, obtuse, stem very much branched, diffuse. *mi'nus.*
Least Toadflax. Sandy cornfi. A. 6—9. *Curt.* 296.

Obs. It is placed in the next division by Lin.

6. A. Leaves linear, crowded, below 4 together, cal. as long as the capsule. A. *repens.* β. Huds. *re'pens.*
Creeping Sn. Fields. P. 7. 9. *Dill. elth.* 163. 197.

7. A. Leaves somewhat linear, lower 4 together, calyxes with viscid hairs, fl. spiked, stem erect. *arven'se.*
Corn Toadflax. Sandy cornfi. A. 7. 8. *Dill.* 163. 198.

3. *Leaves alternate* (minus).

8. A. Leaves lanceolato-linear, crowded, stem erect, spikes terminating, sessile, flow. imbricated. (Calyx smooth.) *Lina'ria.*
Toadflax. Road sides. P. 7. 9. *Curt.*

Var. 2. Nect. 2, or more to each flower. Var. 3. With.

—— 3. *Peloria.* β. Huds. var. 4. With. *Cor.* regular, with 5 equal stamens, and 5 nect. *E. Bot.* 260.

Obs. According to Lin. the fruit of this var. is always abortive; but Hoffman has met with fertile seeds, which produced plants of the common form of A. *linaria.* Bot. Annal.

4. *Corols gaping, or without a spur.*

9. A. Fl. spiked, calyxes rounded. *ma'jus.*
Greater Snapdr. Old walls. B. 6. 7. *E. Bot.* 129.

10. A. Fl. nearly spiked, calyxes longer than the corol. *Oron'tium.*
Less Snapdrag. Sandy cornfi. A. 7. 8. *Curt.* 234.

746. PEDICULA'RIS. *Cal.* (mostly) 5-cleft. *Caps.* 2-celled, mucronate, oblique. *Seeds* (not) coated (few, angular, acute).

1. P. Stem branched (solitary), calyxes crested with callous dots, lip of the corols oblique. (Cal. ovate, hairy, ribbed, with 2 notched divisions. E. BOT.) *palus'tris.*
Marsh Lousewort. Heaths. P. 6—8. *E. Bot.* 399.

sylvat'ica. 2. P. Stem branched, calyxes oblong, angular, smooth, lip of the corols cordate. (Stems several, spreading, simple; cal. oblong, angular, smooth, with five unequal notched segments. E. Bot.)
Com. Lousewort. Moist past. P. 6. 7. *E. Bot.* 400.

774. Linnæ'a. *Cal.* double, of the fruit 2-leaved, of the flow. 5-parted, superior, *Cor.* campanulate. *Berry* dry, 3-celled.

borea'lis. 1. Linnæa. (Cal. of the fruit 4-leaved, 2 leaflets smaller, more acute, reddish. Schkuhr.)
Two-flow. Lin. Rocky mossy woods P. 6. *E. B.* 433.

CLASS XV.

TETRADYNAMIA.

SILICULOSA.

1. *Silicle entire, not emarginate at the end.*

—— MOEN'CHIA. *Silicle* ovate, crowned with the style, valves rather convex. WITH. GMELIN.

800. DRA'BA. *Silic.* valves flattish. *Style* 0.

799. SUBULA'RIA. *Silic.* valves semi-ovate. *Style* shorter than the silicle.

796. MYA'GRUM. *Silicle* valves concave. *Style* persisting.

797. VEL'LA. *Silic.* valves one half shorter than the dissepiment.

823. BU'NIAS. *Silicle* deciduous, roundish, muricated.

825. CRAM'BE. *Silic.* deciduous, globular, like a dry berry. *Filam.* 4 (longer) forked at the end.

824. I'SATIS. *Silic.* deciduous, lanceolate, 1-seeded.

(Cochlearia Coronopus.)

2. *Silicle emarginate at the end.*

804. IBE'RIS. *Petals* 2 outermost larger.

803. COCHLEA'RIA. *Silicle* cordate, valves obtuse, gibbous.

801. LEPID'IUM. *Silic.* cordate, valves acutely keeled.

802. THLAS'PI. *Silic.* obcordate, valves (in some species) marginate, keeled.

SILIQUOSA.

1. *Calyx closed, the leaflets converging longitudinally.*

822. RAPH'ANUS. *Silique* jointed.
814. ERYS'IMUM. *Silique* 4-cornered.
815. CHEIRAN'THUS. *Silique*, the germen with a gland on each side of its base.
817. HES'PERIS. *Glands* within the shorter stamens. *Pet.* oblique.
818. AR'ABIS. *Glands* 4 within the leaflets of the calyx. *Stigma* simple.
820. BRAS'SICA. *Glands* 2 within the shorter stamens; 2 on the outside of the longer stamens.
819. TURRI'TIS. *Petals* erect.
811. DENTA'RIA. *Silique* valves revolute, when open.

2. *Calyx gaping, the leaflets distant above.*

812. CARDAM'INE. *Silique* opening, valves revolute.
821. SINA'PIS. *Silique* opening. *Calyx* expanding horizontally.
813. SISYM'BRIUM. *Silique* opening, valves straightish.

Obs. *Crambe*, *Isatis*, and *Bunias* are placed in this division by LINNÆUS.

(Brassica Napus.)

SILICULOSA.

—— MOEN'CHIA. *Silicle* entire, ovate, crowned with the style. *Valves* rather convex, parallel to the partition, cells many-seeded. GMELIN. WITH.

sati'va. 1. M. Silicles obovate, peduncled, many-seeded. WITH. Myagrum *sativum.* Lin.
Gold of Pleasure. Cornfields. A. 5. 6. *F. Dan.* 1038.

796. MYA'GRUM. *Silicle* terminated by a conical style, cell mostly 1-seeded.

sati'vum. 1. M. Silicles obovate, peduncled, many-seeded. See Moenchia *sativa.*

800. DRA'BA. *Silicle* entire, ovali-oblong, valves flattish, parallel to the dissepiment. *Style* 0.

ver'na. 1. D. Scapes naked, leaves slightly serrated. (Petals bifid.)
Whitlow-grass. Walls, &c. A. 3. 4. *Curtis.*

2. D. Leaves (obovate) hairy, toothed or entire, scape 1-leaved, silicles oblong, erect. JACQ. Petals entire. WITH. D. *hirta* Lin.? *stella'ta.*
—— Ben Lawers. DICKS. P. 5. 6. *Jacq. Aus.* 432.

Obs. Lin. has given the annexed char. of D. *hirta*, "Scape (stem) 1-leaved, leaves somewhat hirsute, silicles oblique, pedicelled;" and observes that the petals are white, emarginate, the silicles more smooth than those of D. *incana*, and ovate, the peduncles half as long as the silicle. SP. PL.

3. D. Stem branched, leaves ovate, sessile, toothed. (Pedunc. when in fruit, horizontal, longer than the somewhat oblique silicles.) *mura'lis.*
Wall Whitlow-grass. Rocks, &c. A. 5. *Pet.* 48. 5.

4. D. Stem-leaves numerous, hoary, silicles oblong, oblique (twisted), somewhat sessile. *inca'na.*
Wreathed Whitlow-gr. Rocks. B. 5. 7. *E. Bot.* 388.

799. SUBULA'RIA. *Silicle* entire, ovate, valves ovate, concave, contrary to the dissepiment. *Style* shorter than the silicle.

1. SUBULARIA. *aquat'ica.*
Water Awl-wort. Lakes. A. 6. 7. *F. Dan.* 35.

797. VEL'LA. *Silicle* with a dissepiment twice as large as the valves, ovate without.

1. V. Leaves pinnatifid, silicles pendulous. *an'nua.*
Cresse-rocket. Salisbury Plain. A. 6. *Ger.* 247. 4.

823. BU'NIAS. *Silicle* (*Drupe*-like) deciduous, 4-sided, the angles unequal, acuminate, (sharp, often) muricated.

1. B. Silicles ovate, smooth, 2-edged (somewhat 4-cornered). *Cak'ile.*
Sea-rocket. Sea-shore. A. 6—10. *E. Bot.* 231.

825. CRAM'BE. Four longer *Filam.* 2-forked at the end, one of the points anther-bearing. *Berry* dry, globular, deciduous.

1. C. Leaves and stem smooth. *marit'ima.*
Sea Colewort. Sea shore. P. 5. 6. *F. Dan.* 316.

824. I'SATIS. *Silique* (*Pericarp*) lanceolate, 1-celled, 1-seeded (crowned by the style), deciduous, 2-valved, valves navicular.

1. I. Root-leaves crenate, stem-leaves sagittate, silicles oblong. *tincto'ria.*
Wild Woad. Cornfields. B. 6. 7. *E. Bot.* 97.

804. IBE'RIS. *Cor.* irregular, 2-outer petals larger. *Silicle* many-seeded, emarginate.

ama'ra. 1. I. Herbaceous, leaves lanceolate, acute, slightly toothed, flow, racemous.
Bitter Candytuft. Cornfields. A. 6. 7. *E. Bot.* 50. 2.

nudicau'lis. 2. I. Herbaceous, leaves sinuated, stem naked, simple (sometimes with 2 or 3 leaves).
Naked Candyt. Heaths. A. 5—7. *Curtis E. Bot.* 327.
Var. 2. Stem leafy, leaves 2, or 3, oblong, entire. HUDS.

803. COCHLEA'RIA. *Silicle* emarginate, turgid, rough, valves gibbous, obtuse.

officina'lis. 1. C. Root-leaves cordato-circular, stem-leaves oblong, somewhat sinuated. (Stem branched.)
Scurvy-grass. Sea shore. A. 4. 5. *F. Dan.* 135.
Obs. It is subject to considerable changes in its appearance. See With. Vol. iii. p. 572.

dan'ica. 2. C. Leaves hastato-angular, all of them deltoid. (Stem not branched. Stolons procumbent.—— Stems diffuse procumbent, silicles ovate, mostly 3-seeded. ROTH in Bot. Ann. St. 4. 40.)
Danish Scurvy-grass. Sea shores. A. 5. 6. *F. D.* 100.

grœnlan'dica. 3. C. Leaves reniform, entire, fleshy,
— Mount. A. Huds. B. Mil. 4. 5. *Barth. act.* iii. t. 144.
Are C. *grœnlandica*, *anglica*, & *danica*, var. of C. *officinalis*?

an'glica. 4. C. All the leaves ovato-lanceolate. (Stems erect, approximate, silicles roundish, 4-seeded. ROTH. l. c.)
Sea Scurvy-g. Sea shores. A. or B. 5. *F. Dan.* 329.

Coro'nopus. 5. C. Leaves pinnatifid, stem depressed. (Silicles reniform, cristato-muricated.)
Swine's-cress. Cornfields, &c. A. 6. 8. *Mart.* 92.

Armora'cia. 6. C. Root-leaves lanceolate, crenate, stem-leaves incised.
Horse-raddish. Sides of Ditches. P. 5. *Woodv.* 150.
Var. 2. Root-leaves deeply pinnatifid. ST. *Pet.* 49. 12.

801. LEPID'IUM. *Silicle* emarginate, cordate, many-seeded, valves keeled, contrary.

1. *Four stamens longer.*

petræ'um. 1. L. Leaves pinnate, very entire, petals emarginate, less than the calyx. (Leaflets elliptical, very entire, thickish. JACQ.
Mount. Pepperwort. Rocks. B. 3. 4. *E. Bot.* 111.

2. L. Leaves ovato-lanceolate, entire, serrated (in the middle.—Flow. racemous, minute, silicles elliptical. PERS.) *latifo'lium.*
Broad-leaved Dittander. Past. P. 6. 7. *E. B.* 182.

2. *Stamens* 2, *or* 4.

3. L. Leaves pinnatifid, stem erect, fruit didymous (muricated—Nearly allied to Coch. *coronopus.*). L. *anglicum* Huds. with this char. "Flow. diandrous (or tetrandrous), 4-petalled (or apetalous), leaves pinnatifid, stem procumbent, hairy." *didy'mum.*
Procumbent Dittander. Rubbish. A. 6. 7. *E. B.* 248.

4. L. Flow. diandrous (and tetrandrous), apetalous (sometimes), root-leaves dentato-pinnate; branch-leaves linear, very entire. *rudera'le.*
Narrow-leaved Ditt. Rubbish. P. 6. 7. *F. D.* 184.

802. THLAS'PI. *Silicle* (generally) emarginate, obcordate, many-seeded; valves navicular, keeled at the margin.

1. T. Silicles orbicular, leaves oblong, toothed, smooth. *arven'se.*
Treacle Mustard. Cornfi. A. 6. 7. *F. Dan.* 793.

2. T. Silicles roundish, leaves sagittate, toothed, hoary. *campes'tre.*
Mithridate-Mustard. Cornfields. B. 6. 7. *Curtis.*
Var. 2. Leaves smooth, scarcely serrated, root-leaves not sinuated. WITH., *Ger.* 262. 2.
—— 3. Silicles, stem, and leaves tomentous. Root-leaves entire, lineari-lanceolate, on long petioles. WITH. Th. *hirtum* Huds. B. 7.

3. T. Silicles obcordate; stem-leaves cordate, smooth, somewhat toothed, petals as long as the calyx, stem branched. (Root-leaves petioled, stem-leaves embracing, toothed, pet. rather longer than the calyx.) T. *alpestre* Hud. *perfolia'tum.*
Perfoliate Sh. P. Burford Downs. A. 4. *J. Aus.* 337.

4. T. Silicles obcordate (each cell 1, or 2-seeded), leaves smooth, root-leaves fleshy, obovate, very entire, stem-leaves embracing (erect, oblongo-lanceolate), corols larger than (twice as large as) the calyx. *monta'num.*
Mount. Bastard-cress. Past. P. 6. 7. *Jacq. Aus.* 237.

5. T. Silicles obcordate, leaves somewhat toothed (glaucous), stem-leaves embracing (root-leaves *alpes'tre.*

petioled), pet. (very small) as long as the calyx, stem (mostly) simple.
—— Limestone rocks. B. 7. *E. Bot.* 81.

Bur'sa pasto'ris. 6. T. Silicles (triangulari-) obcordate, root-leaves pinnatifid.
Shepherd's Purse. Road sides. A. 3—9. *Curtis.*

SILIQUOSA.

822. RAPH'ANUS. *Cal.* closed. *Silique* cylindrical, torose, somewhat jointed. *Glands* 2 melliferous between the shorter stamens and pistils, and 2 between the longer stam. and calyx.

Raphanis'trum. 1. R. Siliques cylindrical, jointed, smooth, 1-celled. (Corol striped with purplish veins, stems even, glaucous, generally branched from the bottom.)
White-flowered Charlock. Cornfi. A. 6. 7. *Curt.* 267.

814. ERYS'IMUM. *Silique* columnar, exactly 4-sided. *Cal.* closed. (*Stigma* a knob. WITH.)

officina'le. 1. E. Siliques pressed to the spike, leaves runcinate.
Hedge Mustard. Road sides. A. 5. 6. *Curt.* 326.

Barba'rea. 2. E. Leaves lyrate, terminating segment almost round. (Upper leaves obovate, toothed, siliques not exactly 4-cornered.)
Yellow Rocket. Waste ground. P. 5—10. *E. Bot.* 443.

Allia'ria. 3. E. Leaves cordate.
Sauce-alone. Hedges, &c. P. 5. *Curt.* 144.

Cheiran'thoi'des. 4. E. Leaves lanceolate, very entire (toothed), siliques patulous. (Stem very much branched.)
Treacle Wormseed. Banks of riv. A. 7. *F. Dan.* 923.

815. CHEIRAN'THUS. *Germ.* with a glandular toothlet on both sides. *Cal.* closed, 2 of the leaflets gibbous at the base. *Seeds* flat (oftener membranaceo-marginate. GAERT.).

Cheiri'. 1. C. Leaves lanceolate, acute, smooth, branches angular, stem shrubby.
Wall-flower. Old walls, &c. P. 5. 6. *Sheldr.* 12.

sinua'tus. 2. C. Leaves tomentous, obtuse, rather sinuate, branch-leaves entire, siliques muricated.
Sea Stock. Sandy sea shores. B. 6. 7. *E. Bot.* 462.

erysimoi'des. 3. C. Leaves lanceolate, toothed, naked, stem erect, very simple, siliques 4-cornered. (Leaves lanceolate, very entire, siliq. 4-cornered. HUDS.)
Wild Stock. Godstow, Oxfordsh. B. 6. 7. *Ger.* 457.

817. HES'PERIS. *Petals* turned obliquely. *Glands* within the shorter stamens. *Silique* stiff and straight. *Stigma* forked at the base, converging at the end. *Cal.* closed.

1. H. Stem simple, erect, leaves somewhat hastate, toothed, petals obtuse. *inodo'ra.*
Scentless Damewort. Past. B. or P.? 5.6. *F.D.*924.

818. AR'ABIS. *Glands* 4 nectariferous, one within each of the calyx-leaflets, like a reflected scale. (*Silique* long, compressed, linear, entire, knobbed at the end. WITH.)

1. A. Leaves petioled, lanceolate, very entire. (Root-leaves ovato-lanceolate, toothed.) *thalia'na.*
Wall-cresse. Walls. A. 5. *Curtis.*
2. A. Leaves toothed, hispid; root-leaves (somewhat) spatulate, stem-leaves (toothed) half-embracing, oblong, siliques 2-edged, (slender,) erect. HUDS. *stric'ta.*
Rough Wall-cresse. Rocks, &c. A. 5. *Velley.*
3. A. Leaves embracing the stem, siliques bent backwards, flat, linear, cal. rather (not at all) wrinkled. *Turri'ta.*
Tower Turkey-pod. Old walls. A. 5.6. *E. Bot.*178.

Obs. This plant does not possess the generic character of Arabis, two of the glands being situated within the shorter stam., and two without the longer as in Brassica. See E. Bot.

820. BRAS'SICA. *Cal.* erect, converging. *Seeds* globular. A *Gland* between each of the shorter stamens and pistil, and between each of the longer and calyx.

1. *Style somewhat obtuse.*

1. B. Leaves cordate, embracing the stem, smooth; root-leaves rough, very entire, siliques 4-cornered. (All the leaves smooth. POLLICH.) *orienta'lis.*
Perfoliate Cabbage. Cornh. A. 6. *Jacq. Aus.* 282.
2. B. Root and stem slender, stem-leaves uniform, cordate, sessile, (smooth; Root-leaves lyrate, somewhat hispid.) *campes'tris.*
—— Bradley, in Suffolk. A. 6. *F. Dan.* 550.
3. B. Root caulescent, fusiform. (Nearly allied to the genus Sinapis, from the calyx spreading. PERS.) *Na'pus.*
Wild Navew. Ditch-banks. B. 5. 6. *Mart.* 103.

Ra'pa. 4. B. Root caulescent, orbicular, depressed, fleshy.
Turnep. Cornfields. B. 4— *Mart.* 49. & 50.

olera'cea. 5. B. Root caulescent, cylindrical, fleshy.
Sea Cabbage. Cliffs on sea coast. P. 5. 6. *Pet.* 45. 6.

mura'lis. 6. B. Leaves lanceolate, sinuato-serrated (or pinnatifid); smoothish, stem erect, smooth. HUDS. WITH. Sisymbrium *murale* Lin. See Sisymbrium. Page 150.
Wild Rocket. Old walls. P. 5—7. *Curt.*

monen'sis. 7. B. Leaves pinnatifid, pinnæ (segments) inciso-serrated, stem almost naked, procumbent. HUDS. WITH. Sisymbrium *monense* Lin.
Procumbent Rocket. Sea shore. B. 5—7. *Lightf.* 15. 1.

821. SINA'PIS. *Cal.* spreading. *Cor.* claws erect. A *Gland* between each of the shorter stamens and pistil; and between each of the longer and calyx.

arven'sis. 1. S. Siliques many-angled, toroso-turgid, smooth, longer than the two-edged beak.
Charlock. Cornfields. A. 5. *Curt.* 321. *Mart.* 101.

al'ba. 2. S. Siliques hispid, beak oblique, very long, ensiform.
White Mustard. Cornfields, &c. A. 8. *Curt.* 322.

ni'gra. 3. S. Siliques (somewhat 4-cornered) smooth, pressed close to the raceme.
Com. Mustard. Cornfi. A. 6. *Woodv.* 151. *Mart.* 51.

819. TURRI'TIS. *Silique* very long, angular. *Cal.* converging, erect. *Cor.* erect.

gla'bra. 1. T. Root-leaves toothed, hispid, stem-leaves very entire, embracing, smooth.
Tower Mustard. Meadows, &c. A. 5. 6. *Curt.* 253.

hirsu'ta. 2. T. All the leaves hispid, stem-leaves embracing.
Hairy Towerwort. Rocks, &c. P. 6. *Park.* 834. 6.

811. DENTA'RIA. *Silique* (cylindrical), bursting elastically, valves revolute. *Stigma* emarginate. *Cal.* converging longitudinally.

bulbif'era. 1. D. Lower leaves pinnate, upper ones simple.
Bulbed Coralwort. Woods, &c. P. 4. 5. *E. Bot.* 309.

812. CARDAM'INE. *Silique* (long, 2-edged,) bursting elastically, valves revolute. *Stigma* entire. *Cal.* rather gaping. A *Gland* on each side between the shorter stamen and the calyx.

1. *Leaves simple.*

1. C. Leaves simple, ovate, very entire, on long petioles. *bel'lidifo'lia.*
Daisie Ladies-smock. Scotland. P. 4. 5. *F. D.* 20.

2. C. Leaves simple, oblong, toothed. (Valves opening from the base, but not revolute.) Arabis *hispida.?* See E. Bot. P. 469. *petræ'a.?*
Mount. L. Welch mount. P. 5—7. *F. Dan.* 386.

3. C. Root-leaves hastate, or lyrate, stem-leaves lanceolate, entire. E. Bot. C. *petræa.* Lightf. *hastula'ta.*
Alpine Ladies-sm. Moist rocks. P. 7. *E. Bot.* 469.

2. *Leaves pinnate.*

4. C. Leaves pinnate, incised, stipuled, flow. apetalous (pet. small). (Leaflets lanceolate, mostly incised, stipules fringed. E. Bot.) *impa'tiens.*
Impatient Ladies-s M. mead. A. 5. 6. *E. Bot.* 80.

5. C. Leaves pinnate, flowers tetrandrous. (Plant small, leaflets opposite, about 3 pairs with an odd one larger, reniform, or circular.) C. *hirsuta.* β. Huds. *hirsu'ta.*
Hairy Ladies-sm. Grav. soil. A. 3—6. *Barr.* 455.

6. C. Stem flexuose, leaflets toothed, mostly alternate, unequal at the base. With. C. *hirsuta* Huds. Curt. *flexuo'sa.*
Zig-zag Ladies-s. Ditches. A. 5—7. *Curt.* 277.

Obs. "Leaves pinnate, leaflets roundish, or oblong, crenate, petioled, stipules none." E. Bot. 492. This is the char. of C. *hirsuta*, as given by Dr. Smith, who is decidedly of opinion that C. *hirsuta* and *flexuosa* are so far from constituting distinct species, that they are not even marked var. He adds, that the stam. are generally 6, in early, or starved flow. 4, that luxuriant specimens are most zig-zag, starved ones most hairy; and that C. *parviflora* Lin. is a very distinct species, not hitherto found in Britain. I am informed however that C. *hirsuta* does not become like the *flexuosa* on cultivation, and think the latter a strongly marked var. if not a distinct species.

7. C. Leaves pinnate, root-leaflets roundish, stem-leaflets lanceolate. *praten'sis.*
Common Ladies-sm. Meadows. P. 4. 5. *Curt.* 175.

8. C. Leaves pinnate, the axils stoloniferous. (Anthers purple.—Stem-leaflets angular, sessile. Stokes.) *ama'ra.*
Bitter Ladies-s. Moist mead. P. 4. 5. *Curt.* 158.

813. Sisym'brium. *Siliq.* opening with straightish valves. *Cal.* spreading. *Cor.* spreading.

1. *Siliques declining, short.*

Nastur'tium. 1. S. Leaves pinnate, leaflets somewhat cordate (ovate).
Water-cresses. Springs, &c. B. 6. 7. *Mart. Let.* 21.

sylves'tre. 2. S. Siliques oblongo-ovate, leaflets lanceolate, serrated.
Creeping Water-cress. Watery pl. P. 6. 7. *Curt.* 153.

amphib'ium. 3. S. Siliques oblongo-ovate, leaves pinnatifid, serrated. (Pet. longer than the calyx. WITH.)
Var. 1. Leaves deeply pinnatifid. Var. 2. With., who considers it as S. *amphibium* terrestre γ. Lin. on the authority of the figures referred to by Vaillant. *Kniph.* 3. *Ger.* 240. 2.
—— 2. *aquaticum.* β. Lin. Huds. Var. 1. With. Leaves simple, toothed, serrated. *F. Dan.* 984. *Ger.* 234. 2.
Radish Water-cress. Watery places. P. 6—8.

terres'tre. 4. S. Root annual, leaves pinnatifid, siliques full of seeds, pet. shorter than the calyx. WITH. S. *amphibium.* α. palustre. Lin. Huds. See With.
Annual Water-cr. Edges of ditches. A. 6—9. *Curt.*

2. *Stem naked.*

mura'le. S. Almost stemless, leaves lanceolate, sinuato-serrated, smoothish; scapes roughish, ascending —See Brassica *muralis.* Page 148.

monen'se. S. Stemless, leaves pinnato-dentate, rather hairy, scapes smooth.—See Brassica *monensis.* P. 148.

3. *Leaves pinnate.*

So'phia. 5. S. Petals less than the calyxes, leaves decomposito-pinnate.
Flix-weed. Rubbish, &c. A. 7. *Mart.* 57.

Ir'io. 6. S. Leaves runcinate, toothed, naked, stem smooth, siliques erect.
Broad-leaved Water-cress. Rubbish. A. 5—8. *Curt.*

CLASS XVI.

MONADELPHIA.

TRIANDRIA.

(XXII. *Juniperus.*)

DECANDRIA.

832. GERA'NIUM. *Pistil* 1. *Caps.* (*Fruit*) 5-grained, beaked.

(X. *Oxalis.* XVII. *Spartium. Genista. Anthyllis. Ulex. Ononis.*)

POLYANDRIA.

842. LAVATE'RA. *Pist.* many. *Cal.* outer 3-cleft. *Arils* 1-seeded, verticillate.

841. MAL'VA. *Pist.* many. *Cal.* outer 3-leaved. *Arils* 1-seeded, verticillate, numerous.

839. ALTHÆ'A. *Pist.* many. *Cal.* outer 9-cleft. *Arils* 1-seeded, verticillate.

(XXI. *Pinus.* XXII. *Taxus.*)

DECANDRIA.

832. GERA'NIUM. Monogynous. *Stigm.* 5. *Fruit* beaked, 5-grained. (*Style* 1. *Pet.* 5, regular. *Nect.* 5 glands at the base of the longer stam. *Fruit* beaked, separating into 5 seed-cases, each tipped with a long simple naked awn. E. BOT.)

Obs. The following arrangement of the species is from Withering.

1, *Corol regular, peduncles 1-flowered.*

sanguin'eum. 1. G. Leaves 5 (or 7) -parted, (segm.) trifid, orbicular. (Pedunc. jointed, stem procumbent. With.)
Bloody Crane's-bill. Dry past. P. 7—9. *E. Bot.* 272.
Var. 2. β. Huds. Leaves larger, paler, more deeply divided. Ray syn. 360.

lancas'triense 2. G. Leaves circular, 5, or 7-parted, segm. 3-cleft, pedunc. jointed, stem erect. With. G. *sanguineum* γ. Huds. See Ray syn. 360. 16.
—— Isle of Walney, Lanc. P. 7. 8. *Pet.* 64. 11.

2. *Petals emarginate, or bifid, pedunc. 2-flowered.*

A. Perennial.

pyrena'icum. 3. G. Lower leaves (reniform) 5-parted, many-cleft, rounded, upper ones 3-lobed, (lobes 3-cleft,) stem erect. (Seed-cases even, acutely keeled, slightly tomentous, seeds smooth. E. Bot.)
Mount. Crane's-bill. Pastures. P. 6. 7. *E. Bot.* 405.

nodo'sum. 4. G. Petals emarginate, stem-leaves (5 or) 3-lobed, entire, serrated, glossy underneath.
Knotty Crane's-bill. Mount. pl. P. 7. 8. *Ger.* 947. 2.

sylvat'icum. 5. G. Leaves (scarcely) somewhat peltate, 5 (or 7) -lobed, inciso-serrated, stem erect, pet. (entire, or slightly) emarginate. (Arils hairy. E. Bot.)
Wood Crane's-b. Mount. past. P. 6. 7. *E. Bot.* 121.

B. Annual.

dissec'tum. 6. G. Leaves 5-parted and trifid (or many-cleft), pet. emarginate, as long as the calyx, arils villous. (Peduncles shorter than the leaves.)
Jagged Crane's-bill. Road sides. A. 5—8. *Curtis.*

columbi'num. 7. G. Pedunc. longer than the leaf, leaves 5-parted, many-cleft, arils smooth, calyxes awned (large).
Long-stalked Cr. Cornfields. A. 6—8. *E. Bot.* 259.

pusil'lum. 8. G. Petals emarginate, stem depressed, leaves reniform, palmate, (segm. nearly) linear, acute. (Leaves reniform, palmate, incised, seed-cases even, keeled, tomentous with erect hairs; seeds smooth. E. Bot.) G. *molle* β. Huds. G. *malvæfolium.* With. Scop. G. columbinum &c. Dill. in Ray. 359. 9. *tab.* 16. *f.* 2.
Small-flowered Cr. Waste gr. A. 6—9. *E. Bot.* 385.

Obs. It differs from G. *molle* in its seed-coats being hairy, and not wrinkled; from G. *rotundifolium* in its awnless calyx, and emarginate petals. See With. Vol. 2. page 603., who

considers this species as a dwarf, or starved plant of his *G. malvæfolium*.

9. G. Peduncles and floral-leaves alternate, petals bifid, calyxes awnless, stem somewhat erect. *mol'le.*
Soft Crane's-b. Dry banks. A. 4—10. *Curt.* 141.

3. *Petals entire, pedunc. 2-flowered.*

A. Perennial.

10. G. Pedunc. solitary, opposite the leaves, calyxes somewhat awned, stem erect, petals undulated. (Aril keeled, hairy below, wrinkled above. E. Bot.) *phæ'um.*
Dusky Crane's-b. Mountains past. P. 5. 6. *E. B.* 322.

11. G. Leaves somewhat peltate, many-parted, wrinkled, acute, pet. entire. *praten'se.*
Meadow Crane's-b. Meadows. P. 6. 7. *Curt.* 250.

12. G. Pedunc. (generally 2-flowered) about 3-flowered; flow. pentandrous, leaves cordate, crenate, incised, rough, stems depressed. (Pet. frequently none.) *marit'imum.*
Sea Cr. Sandy sea shores. P. 6—10. *Pet.* 65. 1.

B. Annual.

13. G. Calyx pyramidal, angular, (the angles) elevated and wrinkled; leaves 5-lobed, rounded. *lu'cidum.*
Shining Crane's-b. Walls, &c. A. 6—8. *E. B.* 75.

14. G. Petals mostly entire, as long as the calyx, stem prostrate (spreading), leaves reniform, incised. (Arils even, hairy, seeds reticulated. E. Bot.) *rotun'difo'lium.*
Round-leaved Cr. Walls, &c. A. 5—7. *E. Bot.* 157.

15. G. Calyxes hairy, with 10 angles. (Leaflets 5, or 3 together, lobes pinnatifid.) *rober'tianum.*
Herb Robert. Walls, &c. A. 4—8. *Curt.*
Var. 2. *shining.* Leaves smaller and more deeply divided; the whole plant shining. Woodw.

4. *Pedunc. many-flowered, leaves pinnate.*

16. G. Pedunc. many-flowered, flow. pentandrous, leaves pinnate, incised, cotyledons pinnatifid. (Flow. in umbels, leaflets mostly on short petioles, unequally cut. With.—Odour resembling musk.) *moscha'tum.*
Musk Cr. Dry pastures, &c. A. 5—10. *Ger.* 941.

cicuta'rium. 17. G. Pedunc. many-flowered, flow. pentandrous, leaves pinnate, incised, obtuse, stem branched. (Flow. in umbels, leaflets sessile, pinnatifid, obtuse, pet. entire. WITH.)

Hemlock Crane's-b. Road sides, &c. A. 4—10. *Curt.*

Var. 2. *fine-leaved.* γ. Huds. 2. With. Leaflets pinnatifid, segm. linear. G. pimpinellæ folio. DILL. in Ray. 358. 5.

—— 3. *hoary.* β. Huds. 3. With. Cor. white, larger, stems thicker, leaves less finely cut. RAY syn. 357. 3.

Obs. 1. The British species of Geranium are divided in the following manner by Linnæus:

1. MYRRHINA. Stam. 5 antheriferous. Cal. 5-leaved. Fruit declining. G. *Cicutarium, moschatum,* and *maritimum.*
2. BATRACHIA. Stam. 10 antheriferous. Pedunc. 2-flow. Perennial. G. *phæum, nodosum, sylvaticum, pratense,* and *pyrenaicum.*
3. Stam. 10. antheriferous. Pedunc. 2-flowered. Annual. G. *molle, robertianum, lucidum, columbinum, dissectum, rotundifolium, pusillum.*
4. Stam. 10 antheriferous. Pedunc. 1-flowered. G. *sanguineum.*

Obs. 2. L'HERITIER has divided this genus into three, viz. Geranium, Pelargonium, and Erodium. To the first he refers all the species which have 10 perfect stam., to the second all those which have 7, and to the third all those which have 5 only. As we have no British species with 7 stam., it is unnecessary to give the char. of Pelargonium here; but the character of Erodium, as comprehending the division Myrrhina, is annexed.

--- ERODIUM. *Cal.* 5-leaved. *Cor.* 5-petalled. *Nect.* scales 5, alternating with the filam, and nectariferous *Glands* sitting on the base of the stamens. *Fruit* 5-grained, rostrate, beaks spiral, bearded inwards. L'HERITIER.

And also the new character of Geranium,

--- GERANIUM. *Cal.* 5-leaved. *Cor.* petalled, regular. *Nect.* glands 5, melliferous, adhering to the base of the longer filam. *Fruit* 5-grained, rostrate, beaks simple, naked, (neither spiral, nor) bearded. L'HERITIER.

POLYANDRIA.

842. LAVATE'RA. *Cal.* double, the outer 3-cleft. *Arils* many, 1-seeded.

arbo'rea. 1. L. Stem arboreous, leaves 7-angled, tomentous, plaited, pedunc. crowded, 1-flowered, axillary. *Sea Tree Mallow.* Sea shores. B. 7—10. ——

841. MAL'VA. *Cal.* double, the outer 3-leaved. *Arils* very numerous, 1-seeded.

1. *Leaves angular.*

1. M. Stem declining, leaves subrotundo-cordate, slightly 5-lobed, flow. peduncled, generally in pairs, pet. as long as the calyx. E. Bot. M. *parviflora.* Huds. *pusilla.*
—— Pembrokesh. B. 7. *E. Bot.* 241.
2. M. Stem prostrate, leaves cordato-orbicular, indistinctly 5 (or 7) -lobed, peduncles, when in fruit, declining. *rotundifolia.*
Dwarf Mallow. Road sides. A. 6—10. *Curt.* 157.
3. M. Stem erect, herbaceous, leaves 7-lobed, acute, peduncles and petioles hairy. (Stem rough, leaves 5, or 7-lobed, toothed, leaflets of the outer calyx partly united at the base. With.) *sylvestris.*
Com. Mallow. Hedges, &c. A. 6—8. *Curtis.*
4. M. Stem erect, root-leaves reniform, incised, stem-leaves 5-parted, pinnato-multifid. (Leaflets of the outer calyx distinct. Flowers generally of a musk-like scent—Hairs upon the stem solitary, erect.) *moschata.*
Musk Mallow. Road sides. P. 7. 8. *Curt.* 228.
5. M. Stem erect, leaves many-parted, roughish, (Stem rough with hairs fascicled, expanded.) *alcea?*

Obs. Mr. Curtis informs us that in M. *Alcea* the calyx has a protuberating ring at the base, and the outer calyx is formed of 3 ovate leaflets, whereas the M. *moschata* has not this ring at the base of the calyx, and the calyx-leaflets are lanceolate.

839. Althæa. *Cal.* double, the outer 9-cleft. *Arils* very numerous, 1-seeded.

1. A. Leaves simple, tomentous (slightly 5-lobed). *officinalis.*
Marsh Mallow. Salt marshes. P. 8. *E. Bot.* 147.
2. A. Leaves trifid, piloso-hispid, smooth (or villous) on the upper side, pedunc. solitary, 1-flowered. (Outer calyx 8-leaved.) *hirsuta.*
—— Near Cobham. Rayer. *Jacq. Aust.* 2, 170.

CLASS XVII.

DIADELPHIA.

HEXANDRIA.

849. Fuma'ria. *Cal.* 2-leaved. *Cor.* ringent, gibbous at the base, nectariferous. *Filam.* with 3 anthers.

OCTANDRIA.

850. Polyg'ala. *Cal.* 2 segments wing-like. *Cor.* standard cylindrical. *Stam.* connected. *Caps.* obcordate, 2-celled.

DECANDRIA.

1. *All the stamens connected.*

858. Spar'tium. *Filam.* adhering to the germen. *Stigma* hairy, adnate (growing to the upper side of the style. With.).
859. Genis'ta. *Pistil* depressing the keel. *Stigma* involute.
864. Anthyl'lis. *Cal.* turgid, including the legume.
881. U'lex. *Cal.* 2-leaved. *Legume* scarcely longer than the calyx.
863. Ono'nis. *Legume* rhomboid, sessile. *Standard* striated.

2. *Stigma pubescent* (without the marks of the first division).

871. Or'obus. *Style* linear, nearly cylindrical, villous above.
870. Pi'sum. *Style* keeled, and hairy above.
872. Lath'yrus. *Style* flat and villous above.
873. Vi'cia. *Style* bearded under the stigma.

3. *Legumes* 2-*celled* (without the marks of the first and second division).

892. ASTRAG'ALUS. *Legume* 2-celled, bent into a curve.

4. *Legume about* 1-*seeded* (without the marks of the former divisions).

896. TRIFO'LIUM. *Legume* scarcely longer than the calyx, 1 or 2-seeded. *Flowers* (mostly) capitate.

5. *Legume somewhat jointed* (sometimes spiral. ST.).

887. HEDYS'ARUM. *Legume* with roundish, compressed joints. *Keel* very obtuse.

884. ORNITH'OPUS. *Legume* jointed, bowed.

885. HIPPOCRE'PIS. *Legume* compressed, membranous; one suture with deep notches in the middle.

899. MEDICA'GO. *Legume* spiral, membranaceo-compressed. *Pistil* pressing down the keel.

6. *Legume* 1-*celled*, *many-seeded* (without the the marks of the former divisions.)

874. ER'VUM. *Cal.* 5-parted, nearly equal, almost as long as the corol.

897. LO'TUS. *Legume* cylindrical, stuffed with cylindrical seeds.

Obs. The following arrangement of the British genera is taken from the Systema Vegetabilium.

1. Pinnate without an odd leaflet. *Orobus*, *Pisum*, *Lathyrus*, *Vicia*, *Ervum*.
2. Pinnate with an odd leaflet. *Astragalus*, *Hedysarum*.
3. Trifoliate. *Trifolium*, *Lotus*, *Medicago*, *Genista*, *Ononis*.
4. Umbellate. *Lotus*, *Ornithopus*, *Hippocrepis*.

HEXANDRIA.

849. FUMA'RIA. *Cal.* 2-leaved. *Cor.* ringent. *Filam.* 2, membranous, each with 3 anth.

1. *Corols* 1-*spurred*.

1. F. Root bulbous, solid, stem simple, floral-leaves *interme'dia*.

palmate, as long as the corol. With. F. *bulbosa* β. Lin.

—— Levan's park, &c. P. 4. 5. *With.* P. 29.

Capnoi'des. 2. F. Legumes linear, 4-cornered, stems diffuse, with acute angles.

—— Old walls, near Castleton. — *Kniph.* 11.

officina'lis. 3. F. Pericarps 1-seeded, racemous, stem diffuse.
Common Fumitory. Cornfields. A. 5—8. *Curt.* 112.

capreola'ta. 4. F. Pericarps 1-seeded, racemous, leaves climbing, somewhat tendrilled (not sending forth tendrils, but performing their office with the petioles).
Ramping Fum. Gardens, &c. A. 8—10. *Curtis.*

Obs. Besides its greater disposition to climb, it is distinguish- from F. *officinalis* by its flowers being only half as many, (6—12) one-third larger, and the mouth more closed. See Curtis.

spica'ta. 5. F. Pericarps 1-seeded, spiked, stem erect, leaflets filiform.
Var. 2. *tenuifolia.* F. *spicata* β. Lin. Leaves very slender, flowers white, near Montp. *Bauh. pin.*
Fine-leaved F. Near Greenwich. — 8. *Ger.* 1089. 3.

Obs. This variety has been lately found near Epsom by Mr. Forster, who thinks it a distinct species. See Symons. P. 200.

clavicula'ta. 6. F. Siliques linear, leaves tendril-bearing (petioles ending in tendrils. E. Bot.)
Climbing Fum. Hedges, &c. A. 6—9. *E. Bot,* 103.

OCTANDRIA

851. Polyg'ala. *Cal.* 5-leaved, 2 leaflets wing-like, coloured. *Legume* obcordate, 2-celled.

1, *Crested* (flow, with a pencil-like appendage).

vulga'ris. 1. P. Flow. crested, racemous, stems herbaceous, simple, procumbent, leaves lineari-lanceolate. (Root-leaves ovato-lanceolate, smaller.)
Milkwort. Heaths, &c. P. 6. 7. *E. Bot.* 76.

DECANDRIA.

858. Spar'tium. *Stigma* longitudinal, villous above. *Filam.* adhering to the germ. *Cal.* extended downwards.

scopa'rium. 1. S. Leaves ternate and solitary, branches unarmed, angular.
Com. Broom. Dry pastures. S. 5. 6. *Curt.*

859. GENIS'TA. *Cal.* 2-lipped, $\frac{2}{3}$. *Stand.* oblong, reflected downwards from the pist. and stam.

1. *Unarmed.*

1. G. Leaves lanceolate, smooth, branches striated, cylindrical, erect. (Legum. cylindrical.) *tincto'ria.*
Dyer's Weed. Pastures, &c. S. 7, 8. *E. Bot.* 44.

2. G. Leaves lanceolate, obtuse, stem tubercled, decumbent. *pilo'sa.*
Hairy Greenweed. Pastures. S. 5. 6. *E. Bot.* 268.

2. *Thorny.*

3. G. Thorns simple, flowering branches unarmed, leaves (ovato-) lanceolate. *an'glica.*
Petty Whin. Heaths, &c. S. 5. 6. *E. Bot.* 132.

864. ANTHYL'LIS. *Cal.* ventricose. *Legume* roundish, covered (with the calyx).

1. A. Herbaceous, leaves pinnate, unequal, head double. *vulnera'ria.*
Kidney Vetch. Calcar. soil. P. 5—8. *E. Bot.* 104.

881. U'LEX. *Cal.* 2-leaved. *Legume* scarcely longer than the calyx.

1. U. Leaves villous, acute, thorns scattered. *europæ'us.*

Var. 1. Corol longer than the calyx, thorns longer than the corol. α. Lin. Huds. V. 1. With. P. 2—8. *Ger.* 1319. 1.

—— 2. Corol as long as the calyx, thorns shorter than the corol. β. Lin. Huds. V. 2. With. P. 9. 10. *Ger.* 1321. 6.

Obs. Mr. Forster considers these var. as distinct species, and has given them the following names and characters.

europæus. 1. U. Branches angular, calyxes woolly, shorter than the corol. U. *europæus* α. Huds.

Nanus. 2. U. Branches somewhat cylindrical, calyxes nearly naked, as long as the corol. U. *europæus* β. Huds. and WITH. See Symons. P. 160.

Ray (syn. 475. 2.) expresses a doubt whether the latter be not a distinct species, and remarks that it is smaller, has shorter thorns of a paler green colour, and that it flowers later than the other.

863. ONO'NIS. *Cal.* 5-parted, segments linear. *Stand.* striated. *Legume* turgid, sessile. *Filam.* connate without a division.

1. *Flowers nearly sessile.*

spino'sa. 1. O. Fl. racemous, solitary, leaves ternate, and solitary, branches thorny (smooth).
Thorny Rest-harrow. Barren past. P. 7. *Mart.* 129.

arven'sis. 2. O. Fl. racemous, 2 together; leaves ternate, the upper solitary, branches unarmed, somewhat villous. O. *inermis.* α. arvensis Huds.
Hairy Rest-h. Cornfields. P. 6. *Gerard* 1142. 3.
Var. 2. Stems prostrate, leaves pubescent. O. *arvensis.* β. repens Huds. V. 2. With. Ray syn. 332. 3. Not O. *arvensis* Lin.
Creeping Rest-h. Sea shore. P. 6. 7. *Dill. elth.* 25. 28.

871. Or'obus. *Style* linear. *Cal.* obtuse at the base, upper segments deeper, shorter.

sylvat'icus. 1. O. Stem branched, hirsute, decumbent, leaflets about 7 pair.
Bitter Vetch. Hedges, &c. P. 5—7. *Lightf.* 16.

tubero'sus. 2. O. Leaves pinnate, lanceolate, stipules semi-sagittate, very entire, stem simple (naked below, winged above).
Heath Pea. Meadows, &c. P. 4. 5. *Curtis.*

870. Pi'sum. *Style* triangular, keeled and pubescent above. *Cal.* 2 upper segments shorter. (*Legume* inflated.)

marit'imum. 1. P. Petioles flattish above, stem angular, stipules sagittate, peduncles many-flowered.
Sea Pea. Sea shores. P. 8. *F. Dan.* 338.

872. Lath'yrus. *Style* flat, villous above, broader upwards. *Cal.* 2 upper segments shorter.

1. *Peduncles (mostly) 1-flowered.* (L. hirsutus.)

Aph'aca. 1. L. Tendrils leafless, stipules sagittato-cordate.
Yellow Lathyrus. Sandy cornfields. A. 6—9. *Curt.*

Nisso'lia. 2. L. Leaves simple (grass-like, very long), stipules (2, very small) subulate.
Crimson Grass-vetch. Borders of cornfi. A. 5. *Curt.*

2. *Peduncles (about) 2-flowered.*

hirsu'tus. 3. L. Pedunc. about 3-flowered (mostly 2-flowered), tendrils 2-leaved, leaflets lanceolate, legumes hirsute, seeds rough.
Rough Lathyrus. Cornfields. A. 7. *J. B.* ii. 305.

3. *Peduncles many-flowered* (hirsutus).

4. L. Tendrils 2-leaved, very simple, (or 2 to 3-cleft) leaflets lanceolate. *praten'sis.*
Tare Everlasting. Meadows. P. 7. 9. *Curt.* 170.

5. L. Tendrils 2-leaved, leaflets ensiform, internodes of the stem membranous. *sylves'tris.*
Wild Lathyrus. Woods, &c. P. 7. 8. *Ger.* 1229. 1.

6. L. Tendrils 2-leaved, leaflets lanceolate, internodes of the stem membranous. *latifo'lius.*
Broad-leaved Vetchling. Hedges. P. 7. 8. *Mart.* 8.

7. L. Tendrils many-leaved, stipules lanceolate. *palus'tris.*
Marsh Vetchl. Moist mead. P. 7. 8. *E. Bot.* 169.

873. VI'CIA. *Stigma* bearded transversely on the under side. (*Legume* generally with knot-like protuberances. WITH.)

1. *Peduncles elongated* (many-flowered).

1. V. Leaflets oval, stipules slightly toothed. *sylvat'ica.*
Wood Vetch. Thickets, &c. P. 7. 8. *E. Bot.* 79.

2. V. Flow. imbricated, leaflets lanceolate, pubescent, stipules entire. *Crac'ca.*
Tufted Vetch. Hedges, &c. P. 7. 8. *Curt.* 310.

2. *Flow. axillary, nearly sessile.*

3. V. Legumes sessile, mostly in pairs, erect, leaflets retuse, stipules marked (underneath with a black depressed spot as if burnt, toothed, seeds compressed, calyx-teeth very long, straight). *sati'va.*
Com. Tare. Mead. A. 4—6. *Mart.* 116. *E.B.* 334.
Var. 2. Leaves narrower, somewhat linear. β. nigra. Lin. V. *lathyroides* α. & β. Huds. V. 3. With. *Ger.* 1227. 4.

4. V. Legumes pedicelled, generally 4 together, erect, leaflets ovate, very entire, the outer ones decreasing. (Calyx-teeth shorter than the tube of the corol. PERS.) *se'pium.*
Bush Vetch. Hedges, &c. P. 5. 6. *F. Dan.* 699.

5. V. Legumes sessile, solitary, erect, smooth, leaflets (about) six, the lower obcordate. (Stipules semi-sagittate, not spotted, very entire, seeds cubic, warty.) *lathyroi'des.*
Strangle Tare. Dry pastures. A. 5. *E. Bot.* 30.

6. V. Legumes sessile, reflected, hairy, solitary, 5- *lu'tea.*

1. *Flowers nearly sessile.*

spino'sa. 1. O. Fl. racemous, solitary, leaves ternate, and solitary, branches thorny (smooth).
Thorny Rest-harrow. Barren past. P. 7. *Mart.* 129.

arven'sis. 2. O. Fl. racemous, 2 together; leaves ternate, the upper solitary, branches unarmed, somewhat villous. O. *inermis.* α. arvensis Huds.
Hairy Rest-h. Cornfields. P. 6. *Gerard* 1142. 3.
Var. 2. Stems prostrate, leaves pubescent. O. *arvensis.* β. repens Huds. V. 2. With. Ray syn. 332. 3. Not O. *arvensis* Lin.
Creeping Rest-h. Sea shore. P. 6. 7. *Dill. elth.* 25. 28.

871. Or'obus. *Style* linear. *Cal.* obtuse at the base, upper segments deeper, shorter.

sylvat'icus. 1. O. Stem branched, hirsute, decumbent, leaflets about 7 pair.
Bitter Vetch. Hedges, &c. P. 5—7. *Lightf.* 16.

tubero'sus. 2. O. Leaves pinnate, lanceolate, stipules semi-sagittate, very entire, stem simple (naked below, winged above).
Heath Pea. Meadows, &c. P. 4. 5. *Curtis.*

870. Pi'sum. *Style* triangular, keeled and pubescent above. *Cal.* 2 upper segments shorter. (*Legume* inflated.)

marit'imum. 1. P. Petioles flattish above, stem angular, stipules sagittate, peduncles many-flowered.
Sea Pea. Sea shores. P. 8. *F. Dan.* 338.

872. Lath'yrus. *Style* flat, villous above, broader upwards. *Cal.* 2 upper segments shorter.

1. *Peduncles (mostly) 1-flowered.* (L. hirsutus.)

Aph'aca. 1. L. Tendrils leafless, stipules sagittato-cordate.
Yellow Lathyrus. Sandy cornfields. A. 6—9. *Curt.*

Nisso'lia. 2. L. Leaves simple (grass-like, very long), stipules (2, very small) subulate.
Crimson Grass-vetch. Borders of cornfi. A. 5. *Curt.*

2. *Peduncles (about) 2-flowered.*

hirsu'tus. 3. L. Pedunc. about 3-flowered (mostly 2-flowered), tendrils 2-leaved, leaflets lanceolate, legumes hirsute, seeds rough.
Rough Lathyrus. Cornfields. A. 7. *J. B.* ii. 305.

3. *Peduncles many-flowered* (hirsutus).

4. L. Tendrils 2-leaved, very simple, (or 2 to 3-cleft) leaflets lanceolate. *praten'sis.*
Tare Everlasting. Meadows. P. 7. 9. *Curt.* 170.

5. L. Tendrils 2-leaved, leaflets ensiform, internodes of the stem membranous. *sylves'tris.*
Wild Lathyrus. Woods, &c. P. 7. 8. *Ger.* 1229. 1.

6. L. Tendrils 2-leaved, leaflets lanceolate, internodes of the stem membranous. *latifo'lius.*
Broad-leaved Vetchling. Hedges. P. 7. 8. *Mart.* 8.

7. L. Tendrils many-leaved, stipules lanceolate. *palus'tris.*
Marsh Vetchl. Moist mead. P. 7. 8. *E. Bot.* 169.

873. VI'CIA. *Stigma* bearded transversely on the under side. (*Legume* generally with knot-like protuberances. WITH.)

1. *Peduncles elongated* (many-flowered).

1. V. Leaflets oval, stipules slightly toothed. *sylvat'ica.*
Wood Vetch. Thickets, &c. P. 7. 8. *E. Bot.* 79.

2. V. Flow. imbricated, leaflets lanceolate, pubescent, stipules entire. *Crac'ca.*
Tufted Vetch. Hedges, &c. P. 7. 8. *Curt.* 310.

2. *Flow. axillary, nearly sessile.*

3. V. Legumes sessile, mostly in pairs, erect, leaflets retuse, stipules marked (underneath with a black depressed spot as if burnt, toothed, seeds compressed, calyx-teeth very long, straight). *sati'va.*
Com. Tare. Mead. A. 4—6. *Mart.* 116. *E.B.* 334.
Var. 2. Leaves narrower, somewhat linear. β. nigra. Lin. V. *lathyroides* α. & β. Huds. V. 3. With. *Ger.* 1227. 4.

4. V. Legumes pedicelled, generally 4 together, erect, leaflets ovate, very entire, the outer ones decreasing. (Calyx-teeth shorter than the tube of the corol. PERS.) *sep'ium.*
Bush Vetch. Hedges, &c. P. 5. 6. *F. Dan.* 699.

5. V. Legumes sessile, solitary, erect, smooth, leaflets (about) six, the lower obcordate. (Stipules semi-sagittate, not spotted, very entire, seeds cubic, warty.) *lathyroi'des.*
Strangle Tare. Dry pastures. A. 5. *E. Bot.* 30.

6. V. Legumes sessile, reflected, hairy, solitary, 5- *lu'tea.*

seeded; standards smooth. (Stipules blood-coloured. E. Bot.)
Yellow Vetch. Weymouth, &c. P. 7. *E. Bot.* 481.

hybrida. 7. V. Legumes sessile, (solitary) reflected, hairy, 5-seeded, standards villous. (Leaflets emarginate.)
Bastard V. Glastonbury Tor hill. P. 6. *E. Bot.* 482.

lævigata. 8. V. Legumes sessile, solitary, reflected, smooth; stems erect; stipules greenish; leaves smooth. E. Bot. V. *hybrida.* Huds. With.
Smooth-podded Sea V. Weymouth. P. 7—9. *E. B.* 483.

bithynica. 9. V. Legumes peduncled, solitary, erect, leaflets 4, ovali-lanceolate, stipules toothed.
Rough Vetch. Meadows. A. 6—8. *Jacq. hort.* 147.

892. Astragalus. *Legume* (generally) 2-celled, gibbous.

1. *Stems leafy, diffuse.*

hypoglottis. 1. A. Caulescent, prostrate, legumes capitate, ovate, (with a channel along the back) compressed, hairy, the point reflected. (Legumes covered with white soft hairs.)
Purple Mount. Milkwort. Past. P. 6. 7. *E. Bot.* 274.

glycyphyllos. 2. A. Caulescent, prostrate, legumes nearly triangular, bowed, leaves longer than the peduncle, leaflets oval.
Wild Liquorice. Pastures, &c. P. 6. 7. *E. Bot.* 203.

2. *Scape naked, without a leafy stem.*

uralensis. 3. A. Stemless, scape erect, longer than the leaves, legumes subulate, (oblong,) inflated, villous, erect.
Hairy Mount. Milkw. M. past. P. 7. *E. Bot.* 466.

896. Trifolium. *Flowers* mostly capitate. *Legume* scarcely longer than the calyx, not opening, deciduous.

Obs. The character of Trifolium, however easy to be made out by its habit, is formed with great difficulty, its inflorescence being so very various, viz. racemous, umbellate, fascicled, capitate, and spiked.

1. Meliloti, *legumes naked, many-seeded.*

M. ornithopodioides. 1. T. Leg. naked, 8-seeded, generally 3 together, twice as long as the calyx, stems declining. (Leaves small, cordate, deeply toothed. Pers.)
Birds-foot Trefoil. Sandy past. A. 6. 7. *Curt.* 124.

M. officinalis. 2. T. Legumes racemous, naked, 2-seeded, wrinkled, acute, stem erect.

Melilot Trefoil. Cornſi. A. or B.? 6. 7. *Mart.* 72.

2. Lotoidea, *legumes covered, many-seeded.*

3. T. Heads like umbels, legum. 4-seeded, stem creeping. *re'pens.*
Dutch Clover. Meadows, &c. P. 5—9. *Curt.* 193.

4. T. Heads like umbels, leg. 4-seeded, stem ascending. T. *repens* β. hybridum. Huds. *hy'bridum?*
—— Past. near Battersea. P. 5—9. *Vaill.* 22. 5.

3. Lagopoda, *calyxes villous.*

4. T. Heads villous, 5-flowered; central tuft rigid reflected, inclosing the fruit. (Stem villous, pedunc. 3—4-flowered, after flowering bent towards the earth.) *subterra'neum.*
Subterraneous Tref. Heaths. A. 5—8. *Curt.* 128.

5. T. Heads sessile, hemispherical, rigid, calyxes (naked, 10) -striated, patulous, equal. *glomera'tum.*
Round-headed T. Sandy mead. A. 5. 6. *Curt.* 227.

6. T. Heads sessile, lateral, ovate, calyx-segm. unequal, rigid, recurved. *sca'brum.*
Hard-knotted Tr. Chalky past. A. 5. 6. *Barr.* 870.

7. T. Heads sessile, mostly lateral, ovate, cal. (hairy, 10) striated, rounded. *stria'tum.*
Soft-knotted Tr. Dry pastures. A. 6. *Ray* 13. 3.

8. T. Spikes villous, oval, teeth of the calyx setaceous, villous, equal. (Wings of the corol with a blood-coloured spot within.) *arven'se.*
Hare's-foot Tref. Sandy past. A. 7. 8. *Curtis.*

9. T. Spikes loose, corols nearly equal, stipules subulate, converging, stems flexuose, branched. Afz. With. Fl. Suec. T. *Alpestre* Huds. T. *flexuosum.* Jacq. With. ed. ii. *me'dium.*
Zig-zag Tref. Mount. past. P. 7. *E. Bot.* 190.
Obs. Persoon has always found the stipules diverging. P. 727.

10. T. Spikes globular, somewhat villous, surrounded by opposite membranous stipules; corols monopetalous. (Spikes dense, cor. unequal, 4 of the calyx-teeth equal, stipules awned, stems ascending. Afzelius.) *praten'se.*
Purple Tref. Meadows. B. 5—9. *J. B.* ii. 374.
Var. 2. *smaller.* β. Huds. V. 2. With. Leaves obcordate, the upper generally opposite, head naked. Dill. in Ray 328. 5. *Ray* 13. 1.
—— 3. *cultivated.* β. Afzel. γ. Huds. Vol. 3.

With. Larger, more erect than var. 1. more tender, less durable, leaves paler, &c. See Ray syn. 328. 6.

Broad Clover. Meadows, &c. *F. Dan.* 989.

ochroleu'chum. 11. T. Spikes villous, stem erect, pubescent, lower leaflets obcordate. (Lower tooth of the cal. as long as the tube of the corol. With.)

Brimstone Tref. Dry meadows, &c. B. 6. 7. *Curt.*

marit'imum. 12. T. Spikes hairy, globular, stipules lanceolate, erect, calyx-teeth spreading and dilated after flowering, leaflets obovato-lanceolate, upper leaves opposite. E. Bot. With. T. *Stellatum* Huds., not Lin.

Teasel-headed Tr. Sea coast. A. 6. 7. *E. Bot.* 220.

4. Vesicaria, *calyxes inflated, ventricose.*

fragif'erum. 13. T. Spikes (heads) roundish, calyxes inflated, (upper lip) 2-toothed, reflected, stems creeping.

Strawberry Tr. Moist meadows. P. 8. *Curt.*

5. Lupulina, *standards of the corol inflected (permanent).*

procum'bens. 14. T. Spikes oval, imbricated, standards deflected, permanent, stems procumbent. (Spikes oval, closely imbricated, many-flowered, stems widespreading. With.)

Hop Trefoil. Dry meadows, &c. A. 6. *Curt.* 161.

Obs. The Trifolium *procumbens* of English authors is considered by Lin. as a var. of T. filiforme. Arz. See With. V. 3. P. 655.

agra'rium? 15. T. Spikes oval imbricated, stand. deflected, permanent, calyxes naked, stem erect.

Obs. The plant, which the English Botanists consider as the T. *agrarium*, is according to Afz. the T. *procumbens* of Lin. See With.

——— ——— ——— *F. Dan.* 558.

filifor'me. 16. T. Spikes somewhat imbricated (3—5-flowered), standards deflected, permanent, calyxes pedicelled, stems procumbent.

Least Hop Tr. Sandy heaths. A. 5—7. *Ray* 14. 4.

Var. 2. *Less Hop Tref.* Spikes 8—20-flowered. Flow., when in seed, bent back. *Ray* 14. 3. *Curt.* 307.

suffoca'tum. 17. T. Without stem or scape, flowers nearly sessile, from the root.

— Near the Sea, Yarmouth. A. 6—9. *J. Aus.* 60.

887. HEDYS'ARUM. *Cor.* keel transversely obtuse. *Legume* with 1-seeded joints.

1. H. Leaves pinnate, legumes 1-seeded, prickly; wings of the corol as long as the calyx, stem elongated. *Onob'rychis.*
Com. Saintfoin. Meadows, &c. P. 6. 7. *Mart.* 47.

884. ORNITH'OPUS. *Legume* jointed, cylindrical, bowed.

1. O. Leaves pinnate, legumes incurved. *perpusil'lus.*
Com. Bird's-foot. Sandy banks. A. 5—9. *E. B.* 369.

885. HIPPOCRE'PIS. *Legume* compressed, (many-celled,) crooked, notches several along one suture.

1. H. Leg. peduncled, (umbellate) crowded, bowed, repand on the outer margin. *como'sa.*
Tufted Horse-shoe Vetch. Chalk. P. 5. 7. *E. B.* 31.

899. MEDICA'GO. *Legume* compressed, (bent or) spiral. *Keel* of the corol bent down from the standard.

1. M. Pedunc. racemous, legumes twisted, stem erect, smooth. *sati'va.*
Lucern Medick. Pastures. P. 6. 7. *Curt.* 120.
2. M. Pedunc. racemous, legumes crescent-shaped, stem prostrate. *falca'ta.*
Yellow Medick. Sandy past. P. 7. *Mart.* 86. 87.
3. M. Spikes oval, legumes reniform, 1-seeded, stems procumbent. *lupuli'na.*
Trefoil Medick. Cornfields. A. 5—8. *Curt.* 120.
Var. 2. WITH. Legumes about 10 on one peduncle, smaller, slightly compressed, not echinate, but rough with numerous tubercles. RAY syn. 333. 4. *H. ox.* ii. 15. 14.
4. M. Pedunc. about 3-flowered, legumes prickly, stipules toothed, leaflets obcordate, stems spreading. WITH. M. *polymorpha* ζ. Lin. α. Huds. *arab'ica.*
Heart Trefoil. Sandy past. A. 5. 6. *Curt.* 176.
5. M. Legumes mostly 3 on a peduncle, prickles hooked, stipules entire. WITH. M. *polymorpha* λ. Lin. *min'ima.*
— Sandy places. A. — *H. ox.* ii. 15. row 2. 15.
6. M. Peduncles many-flowered, legumes roundish, thorny, hoary, leaves woolly. WITH. M. *polymorpha* μ. Lin. *murica'ta.*
—— Orford, in Suff. A. 5. 6. *H. ox.* ii. 15. 11.

874. Er'vum. *Cal.* 5-parted. as long as the corol.

tetraspermum. 1. E. Peduncles mostly 2-flowered, seeds globular, 4. *Smooth Tare.* Cornfields. A. 6. *Curt.*
Var. 2. Seeds 5 to 7, rarely 4. Stem extremely branched. With.

hirsutum. 2. E. Peduncles many-flowered, (flow. 2—5) seeds globular, 2. (Stem somewhat winged on both sides, plant smooth, legume hirsute.)
Wild Tare. Sandy cornfields. A. 6. 7. *Curt.*

897. Lo'tus. *Legume* cylindrical, stiff and straight (generally with cells). *Wings* converging upwards longitudinally. *Cal.* tubular.

1. *Peduncles many-flowered, forming a head.*

corniculatus. 1. L. Heads depressed, stems decumbent, legumes cylindrical, spreading.
Bird's-foot Clover. Pastures, &c. P. 6. 8. *Curt.* 107.
Var. 2. With. β. Lin. γ. Huds. Larger, stem more erect, leaves and heads woolly. *J. B.* ii. 356. 1.
—— 3. *tenuissimus.* With. β. Huds. Ray syn. 334. 2. Leaves linear, legume narrower.
—— 4. With. δ. Huds. Dill. in Ray syn. 334. 4. Like var. 2, but less hairy.
—— 5. With. ε. Huds. Dill. in Ray syn. 334. 5. Leaves hoary underneath.
—— 6. *smooth.* Plant entirely hairless, stipules semi-ovate, filaments club-shaped. See With.

Obs. Schkuhr divides L. *corniculatus* into L. *arvensis*, "Stem somewhat quadrangular, prostrate;" and L. *uliginosus*, "Stem branched, cylindrical, calyx piloso-squarrose." See Persoon.

CLASS XVIII.

POLYADELPHIA.

POLYANDRIA.

902. HYPER'ICUM. *Cal.* 5-parted, inferior. *Cor.* 5-petalled. *Styles* 1, 3, or 5. *Caps.* cellular. (Cells of the same number as the styles. *Filam.* many, formed into 3, or 5 sets at the base.)

1. *Flowers trigynous.*

1. H. Fruit berry-like, stem shrubby, 2-edged. *Androsæ'mum.*
Tutsan. Woods, &c. P. 7—9. *Curt.* 265.

2. H. Stem 4-cornered, herbaceous. (Leaves ovate; calyx-leaves lanceolate, acute.) *quadran'gula're.*
St. Peter's Wort. Moist hedges. P. 7. *Curt.* 231.

3. H. Stem 2-edged, leaves obtuse, with pellucid dots. (Anthers with a black spot. Stigm. blood-coloured. Calyx-leaves lanceolate.) *perfora'tum.*
Com. St. John's W. Dry banks. P. 7. *E. Bot.* 295.

4. H. Stem somewhat 4-cornered, herbaceous, leaves ovate, calyx-leaflets very obtuse. LEERS. Stem indistinctly 2-edged, leaves obtuse without pellucid dots, calyx-leaves elliptical. E. BOT. *du'bium.*
Imperforate St. J. W. Sapey. P. 7. 8. *E. Bot.* 296.

5. H. Fl. axillary, solitary, stems 2-edged, prostrate, filiform, leaves smooth. *humifu'sum.*
Trailing St. John's Wort. Heaths. P. 7. *Curt.* 162.

6. H. Stem cylindrical, creeping, villous, leaves villous, somewhat circular. *elo'des.*
Marsh St. John's W. Bogs. P. 7. *E. Bot.* 109.

7. H. Calyxes serrato-glandular, stem cylindrical, erect, leaves ovate, smooth. (Pet. obtuse, not dotted, stigm. purple. LEERS.) *monta'num.*
Mount. St. J. W. Mount. woods. P. 7. *E. B.* 371.

hirsu'tum. 8. H. Calyxes serrato-glandular, stem cylindrical, erect, leaves ovate, somewhat pubescent.
Hairy St. John's W. Hedges. P. 6. 7. *Curt.* 182.

pul'chrum. 9. H. Calyxes serrato-glandular, stem cylindrical, leaves embracing the stem, cordate, smooth. (Leaves opposite, glaucous, dotted underneath.)
Upright St. John's W. Hedges, &c. P. 6. 7. *Curt.*

CLASS XIX.

SYNGENESIA.

POLYGAMIA ÆQUALIS.

1. *Semifloscular of Tournefort, all the florets ligulate.*

921. CICHO'RIUM. *Receptacle* somewhat chaffy. *Pappus* about 5-toothed. *Cal.* calycled.

918. HYPOCHÆ'RIS. *Recept.* chaffy. *Pappus* somewhat feathery. *Cal.* imbricated.

905. TRAGOPO'GON. *Recept.* naked. *Pappus* feathery, stipitate. *Cal.* simple.

907. PI'CRIS. *Recept.* naked. *Pappus* feathery, stipitate. *Cal.* calycled.

912. LEON'TODON. *Recept.* naked. *Pappus* feathery, stipitate. *Cal.* imbricated with loose (flexible) scales.

914. CRE'PIS. *Recept.* naked. *Pappus* hairy. *Cal.* calycled, scales of different forms.

911. PRENAN'THES. *Recept.* naked. *Pappus* hairy. *Cal.* calycled, about 5-flowered.

909. LACTU'CA. *Recept.* naked. *Pappus* hairy, stipitate. *Cal.* imbricated, scales with a scariose margin.

913. HIERA'CIUM. *Recept.* naked. *Pappus* hairy, sessile. *Cal.* imbricated, ovate.

908. SON'CHUS. *Recept.* naked. *Pappus* hairy, sessile. *Cal.* imbricated, gibbous.

919. LAP'SANA. *Recept.* naked. *Pappus* 0. *Cal.* calycled.

916. HYOS'ERIS. *Recept.* naked. *Pap.* crowned with a calycle. *Cal.* nearly equal.

2. *Capitate.*

929. CARLI'NA. *Cal.* radiate, rays coloured.

323. Arc'tium. *Cal.* scales incurved, and hooked at the point.

925. Car'duus. *Cal.* ventricose, with thorny scales. *Recept.* hairy.

927. Onopor'don. *Cal.* ventricose, with thorny scales. *Recept.* honey-combed.

924. Serrat'ula. *Cal.* nearly cylindrical, imbricated with scales rather acute, but awnless.

(Centaurea nigra.)

3. *Discoid. (Florets all tubular.)*

935. Eupato'rium. *Recept.* naked. *Pappus* feathery. *Cal.* imbricated. *Pistil* very long.

942. Santoli'na. *Recept.* chaffy. *Pappus* o. *Cal.* imbricated, hemispherical.

943. Athana'sia. *Recept.* chaffy. *Papp.* chaffy. *Cal.* imbricated.

932. Bi'dens. *Recept.* chaffy. *Pappus* awned. *Cal.* imbricated.

(Senecio vulgaris. Tanacetum vulgare. Tussilago Petasites. Aster Tripolium.)

POLYGAMIA SUPERFLUA.

1. *Discoid. (Without ligulate florets.)*

945. Artemis'ia. *Recept.* nearly naked. *Papp.* o. *Cor.* o in the florets of the ray.

944. Tanace'tum. *Recept.* naked. *Papp.* with a slight margin. *Cor.* of the ray 3-cleft.

950. Cony'za. *Recept.* naked. *Papp.* hairy. *Cor.* of the ray 3-cleft.

946. Gnapha'lium. *Recept.* naked. *Pappus* feathery. *Cal.* scariose with concave scales.

(Senecio vulgaris. Tussilago Petasites and hybrida. Aster Tripolium. Erigeron. Bidens.)

2. *Radiate.*

962. Bel'lis. *Recept.* naked. *Papp.* o. *Cal.* simple, with equal scales.

967. Matrica'ria. *Recept.* naked. *Pappus* o. *Cal.* with imbricated acute scales.

966. Chrysan'themum. *Recept.* naked. *Papp.* o. *Cal.* innermost scales scariose.

959. Doro'nicum. *Recept.* naked. *Papp.* hairy.
Papp. of the ray 0.

956. In'ula. *Recept.* naked. *Papp.* hairy.
Anthers 2-bristled at the base.

951. Erig'eron. *Recept.* naked. *Papp.* hairy.
Cor. of the ray capillary.

955. Solida'go. *Recept.* naked. *Papp.* hairy.
Cor. of the ray about 6, remote.

957. Cinera'ria. *Recept.* naked. *Papp.* hairy.
Cal. equal, simple.

953. Sene'cio. *Recept.* naked. *Papp.* hairy.
Cal. scales sphacelated (blackish) at the ends.

652. Tussila'go. *Recept.* naked. *Papp.* hairy.
Cal. scales somewhat membranous.

954. As'ter. *Recept.* naked. *Pappus* hairy.
Cal. somewhat squarrose.

970. An'themis. *Recept.* chaffy. *Pappus* 0.
Cal. hemispherical.

971. Achil'lea. *Recept.* chaffy. *Pappus* 0.
Ray about 5-flowered. *Cal.* oblong.

POLYGAMIA FRUSTRANEA.

984. Gentau'rea. *Recept.* bristly. *Pappus* hairy. *Corol* of the ray tubular.

POLYGAMIA NECESSARIA.

995. Fila'go. *Recept.* naked. *Papp.* 0. *Fem. Florets* among the scales of the calyx.

990. Calen'dula. *Recept.* naked. *Papp.* 0
Seeds membranous.

(Tussilago Farfara. Erigeron.)

MONOGAMIA.

1005. Jasio'ne. *Cal.* common (10-leaved). *Cor.* 5-petalled, regular. *Caps.* inferior, 2-celled.

1006. Lobe'lia. *Cal.* 5-toothed. *Cor.* 1-petalled, irregular. *Caps.* inferior, 2-celled.

1007. Vi'ola. *Cal.* 5-leaved. *Cor.* 5-petalled, irregular. *Caps.* superior, 3-valved.

008. Impa'tiens. *Cal.* 2-leaved. *Cor.* 5-petalled, irregular. *Caps.* superior, 5-valved.

(V. Solanum. Gentiana Pneumonanthe.)

POLYGAMIA ÆQUALIS.

921. CICHO'RIUM. *Recept.* somewhat chaffy. *Cal.* calycled. *Papp.* about 5-toothed, indistinctly hairy.

In'tybus. 1. C. Flow. in pairs, sessile, leaves runcinate.
Wild Succory. Cornfields. B. 7, 8. *Curt.* 241.

918. HYPOCHÆ'RIS. *Recept.* chaffy. *Cal.* somewhat imbricated. *Papp.* feathery.

macula'ta. 1. H. Stem nearly naked, branch solitary; leaves ovato-oblong, entire, toothed. (Seeds wrinkled. Leaves with reddish spots.
Spotted Hypochæris. Mount. past. P. 7. *E. Bot.* 225.

gla'bra. 2. H. Smooth, calyxes oblong, imbricated, stem branched, naked, leaves dentato-sinuated. (Cor. minute, calyx-scales even, seeds of the disk with a stipitate pappus, of the ray with a sessile one. HALLER.)
Smooth Cat's-ear. Sandy soils. A. 6—8. *Curt.* 145.

radica'ta. 3. H. Leaves runcinate, obtuse, rough, stem branched, naked, smooth, pedunc. scaly. (Corols large, calyx-scales with a ciliate keel.)
Long-rooted Hyp. Pastures, &c. P. 5—9. *Curt.* 152.
Var. 2. *smaller.* Stem simple, or with 1 flow. nearly sessile on the side. WOODW.

905. TRAGOPO'GON. *Recept.* naked. *Cal.* simple. *Papp.* feathery.

praten'sis. 1. T. Cal. (about) equal to the ray of the corol, leaves entire, stiff and straight (acuminate; pedunc. cylindrical).
Yellow Goat's-beard. Meadows. B. 6. *E. Bot.* 434.

porrifo'lium. 2. T. Cal. longer than the ray of the corol, leaves entire, stiff and straight, pedunc. thicker upwards, corollets very narrow, truncated.
Purple Goat's-beard. Meadows. B. 5. *F. Dan.* 797.

907. PI'CRIS. *Recept.* naked. *Cal.* calycled. *Pappus* feathery. *Seeds* furrowed transversely.

echioi'des. 1. P. Outer perianth 5-leaved, larger than the awned inner one.
Rough Picris. Cornfields. A. 7. 8. *Curt.* 150.

Hieracioi'des. 2. P. Perianths loose, leaves entire, (root-leaves toothed) peduncles scaly quite up to the calyx.

(Plant rough with hooked bristles; branches purple on one side.) Hedypnois *Hieracioides*. Huds.

Yellow Succory. Cornfi. B. or P.? 7. *E. Bot.* 196.

912. LEON'TODON. *Recept.* naked. *Cal.* imbricated with loosish scales. *Papp.* feathery. (*Recept.* naked, calyx imbricated, the inner scales parallel, equal. *Papp.* hair-like. WITH.; from whom the div. of the species is taken.)

Obs. Symons has divided this genus into two, viz.

TARAXACUM. "*Recept.* convex, naked. *Cal.* oblong, calycled with a double series of leaflets. *Papp.* capillary, stipitate."

Under this genus are included the two first species, the trivial name of the second being changed to *palustre*.

And

LEONTODON. "*Recept.* flattish, naked. *Cal.* imbricated with loosish scales. *Papp.* feathery, sessile."

This genus comprehends the 3 last species.

1. *Pappus stipitate* (capillary).

1. L. Outer scales of the calyx entire, reflected; leaves smooth, runcinate, and acutely toothed, WITH. L. *Taraxacum* α. Huds. *officina'le.*

Com. Dandelion. Pastures, &c. P. 4—9. *Curt.*

Var. 2. L. *Taraxacum*. β. Huds. Leaves fewer, narrower, more deeply laciniated, seed brown. RAY syn. 171. 2. *Pet.* 11. 8.

2. L. Outer scales of the cal. erect, appressed, entire, leaves lanceolate, very entire, or only toothed. WITH. L. *Taraxacum* δ. Huds. *Tarax'acon.*

—— Moors. P. 6. *Scop.* 48.

2. *Pappus sessile* (feathery).

3. L. Stem branched, pedunc. scaly, leaves lanceolate, toothed, very entire, smooth. (Cal. hairy. Papp. mostly sessile, finely feathery.) Hedypnois *autumnale*. Huds. *autumna'le.*

Autumnal Dandelion. Mead. P. 7. 8. *Ger.* 297. 3.

Var. 2. With. Leaves hairy. RAY syn. 164, 1.

—— 3. With. Leaves laciniated. DILL. in R. 166. 2. *Pet.* 12. 2.

—— 4. *dwarf*. With. Leaf acute. DILL. in R. 164. 3. *Pet.* 12. 3.

—— 5. *dwarf*. With. Leaf obtuse, DILL. in R. 4. *Pet.* 12. 4.

his'pidum. 4. L. Whole of the cal. erect, leaves toothed, very entire, hispid, bristles forked. (Bracte linear—Leaves sinuated, somewhat runcinate, hairy, rough, scape thicker upwards, scape and calyx hispid with rigid hairs. PERSOON.)

Rough Dandelion. Meadows. P. 5—9. *Curt.* 314.

Var. 2. β. Lin. L. *Taraxacum* γ. Huds. Var. 2. With. Leaves entire, somewhat denticulate, lanceolate, rough, scape 1-flowered. *Ger.* 302. 3.

hir'tum. 5. L. Whole of the calyx erect (almost smooth), leaves toothed, rough-haired, bristles undivided. (Leaves rather rigid, dry to the touch, segm. oblique—Outer row of seeds without a pappus. HALLER.) Hed. *hispidum* β. Huds.

Deficient Dand. Heaths, &c. P. 6—8. *Curt.*

914. CRE'PIS. *Recept.* naked (generally). *Cal.* calycled with deciduous scales. *Papp.* (scarcely) feathery, stipitate. (*Papp.* capillary, sometimes stipitate. WITH.)

fœ'tida. 1. C. Leaves runcinato-pinnate (pinnatifid), rough-haired, petioles toothed. (Calyx whitish, at first nodding, pappus stipitate, longer than the cal., recept. somewhat hairy. LEERS. Leaves embracing the stem, the uppermost one entire, (or) 1-toothed at the base. PERS.)

Stinking Hawk's-beard. Dry past. B. 6. 7. *E. Bot.* 406.

tecto'rum. 2. C. Leaves lanceolato-runcinate, sessile, smooth, lower ones toothed.

Smooth Hawk's-b. Pastures. A. 6—9. *Curt.* 327.

Var. 2. With. Leaves acuminate. DILL. in R. 166. 10. *Pet.* 12. 7.

—— 3. With. Leaves entire, toothed, lanceolate, or ovate. See DILL. in Ray 164. 5. *Pet.* 12. 5.

—— 4. Stems procumbent, leaves linear, narrow. WITH.

bien'nis. 3. C. Leaves runcinato-pinnatifid, rough, toothed above at the base, cal. muricated (sometimes nearly smooth. ST.)

Rough Hawk's-b. Calc. past. B. 7. 8. *E. Bot.* 149.

911. PRENAN'THES. *Recept.* naked. *Cal.* calycled. *Papp.* simple, nearly sessile. *Florets* in a single row.

mura'lis. 1. P. Florets 5, leaves runcinate.

Wall Prenanthes. Walls. P. 7. *Curt. E. Bot.* 457.

909. LACTU'CA. *Recept.* naked. *Cal.* imbricated, cylindrical, with a membranous margin. *Papp.* simple, stipitate. *Seeds* smooth.

1. L. Leaves vertical, prickly on the keel. (Upper embracing the stem, sagittate; lower runcinate, oblique, or vertical.) *Scario'la.*
Prickly Lettuce. Rubbish. B. 8. *E. Bot.* 268.

Obs. It is distinguished from L. *virosa* by its paler colour, less spreading flower-branches, and vertical leaves. E. BOT.

2. L. Leaves horizontal, prickly on the keel, (and margin,) toothed. (Stem prickly below.) *viro'sa.*
Stinking Lettuce. Ditch-banks. B. 7. 8. *Pet.* 15. 2.
Var. 2. Leaves entire. L. *scariola* β. Huds. STOKES. *Pet.* 15. 1.

3. L. Leaves hastato-linear, sessile, prickly on the keel. *salig'na.*
Least Lettuce. Chalky past. A. 8. *Park.* 783. 4.

913. HIERA'CIUM. *Recept.* (generally) naked. *Cal.* imbricated (sometimes calycled), ovate. *Papp.* (mostly) sessile, simple (rarely feathery).

1. *Scape naked, 1-flowered.*

1. H. Leaves very entire, ovate, tomentous underneath, stolons creeping. (Corol red on the outside.) *Pilosel'la.*
Mouse-ear Hawkweed. Past. P. 5—9. *Curt.* 279.

2. H. Leaves oblong, entire, toothed, scape almost naked, calyx hairy. *alpi'num.*
Mountain Hawkw. Mount. P. 7. 8. *Lightf.* 18.

3. H. Leaves lanceolate, toothed, smooth, scapes almost naked. cal. hirsute. *Hedypnois autumnale* ε. Taraxaci Huds. *Tarax'aci?*
—— Sides of mount. on moist gr. LIGHTF. P. 7.

4. H. Leaves petioled, ovate, hairy, toothed towards the base, teeth distant. CALEY. *ova'tum.*
— Clefts of r. west side of Ingleborough. P. 8.

Obs. It is distinguished from H. *alpinum* Lin., and *villosum* Dicks. Lin. Tr. ii. 288., by the leaves not being attenuated into petioles, but perfectly ovate, and the whole plant being less hairy. Mr. CALEY.

2. *Scape naked, many-flowered.*

du'bium. 4. H. Leaves entire, ovato-oblong, stolons creeping. (Stem, and leaves rough-haired.)
Creeping H. Moist mount. P. 7.8. *F. Dan.* 1044.

Auric'ula. 5. H. Leaves very entire, lanceolate, stolons creeping.
Narrow-leaved Hawkw. Mount. P. 7. *Ger.* 514. 3.

3. *Stem leafy.*

sabau'dum. 6. H. Stem erect, many-flowered, leaves ovato-lanceolate, toothed, half-embracing the stem (lower ones elliptico-lanceolate. E. Bot.)
Shrubby Hawkw. Hedges, &c. P. 7. 8. *E. Bot.* 349.
Var. 2. β. Huds. Var. 2. With. Leaves broad, covered with a short, scarcely evident down. Ray syn. 168. 2. *Pet.* 13. 9.
—— 3. γ. Huds. V. 3. With. Leaves longer, with fewer teeth, stem 1-flowered. Ray syn. 170. 14. *Pluk.* 37. 3.
—— 4. Leaves broad, lanceolate, somewhat petioled. St. *Pet.* 13. 8. See With. iii. P. 685.

prenan'thoi'des. 7. H. Stem erect, panicle terminating, leaves lanceolate, embracing the stem, glaucous underneath. With. H. *spicatum.* Allion. Dicks. Lin. Tr.
—— Woods, Scotl. Dicks. P. 6. 7. *Allion.* 27. 1. 3.

paludo'sum. 8. H. Stem panicled, leaves embracing the stem, toothed, smooth, calyxes hispid.
Marsh Hawkw. Moist woods, &c. B. 7. *Ger.* 300.

muro'rum. 9. H. Stem branched, root-leaves ovate, toothed, stem-leaf smaller.
Wall Hawkweed. Old walls, &c. P. 7. *Ger.* 304. 1.

sylvat'icum. 10. H. Stem branched, leafy, root-leaves ovate, (lanceolate, denticulate), acute, petioled, stem-leaves sessile, pedunc. many-flowered. Gouan. With. H. *murorum* β. Lin. Huds.
—— On Dudley Castle Hill. P. 8. *Ger.* 304. 2.

Kal'mii. 11. H. Stem erect, many-flowered, leaves lanceolate, toothed, peduncles tomentous.
—— Scotland. G. Donn.

villo'sum? 11. H. Stem branched, leafy, leaves hirsute, root-leaves lanceolato-ovate, toothed, stem-leaves embracing, cordate.
—— On Ben Nevis. Dicks. P. 8. *Jacq. Aus.* 87.

mol'le. 12. H. Leaves lanceolate, very entire, soft, the lower ones petioled, flow. on somewhat corymbous peduncles.

—— 8. of Scotl. Dicks. B. 7. 8. *J. Aus.* 119.

13. H. Leaves linear. somewhat toothed, scattered, flowers somewhat umbellate. (Floral-leaves under the spurious umbel 4, unequal, central flow. larger. Pers.) *umbella'tum.*
Bushy Hawkw. Hedges, &c. P. 7. 8. *Curt.*
Var. 2. *gramineum.* γ. Huds. Var. 2. With. Leaves perfectly entire, smooth, dark green. Dill. in Ray syn. 168. 5.
—— About London. 7. 8. *Pet.* 13. 12.

908. Son'chus. *Recept.* naked. *Cal.* imbricated, ventricose. *Papp.* hairy.

1. S. Peduncles hispid (bristly), leaves runcinate, flow. racemous. S. *alpinus.* Huds. *canaden'sis.*
Blue Sow-thistle. Mount. past. A. — *F. Dan.* 182.

2. S. Pedunc. & cal. hispid, somewhat umbellate, leaves runcinate, cordate at the base. *arven'sis.*
Corn Sow-thistle. Cornfields. P. 8. *Curt.* 265.

3. S. Pedunc, and cal. hispid, somewhat umbellate, leaves runcinate, awned at the base. *palus'tris.*
Marsh Sow-thistle. Watery pl. P. 7. 8. *Curt.* 298.

4. S. Pedunc. tomentous, calyxes smooth. *olera'ceus.*
Var. 1. *lævis* α. Lin. Huds. V. 1. With. Leaves embracing the stem, toothed, entire, or pinnatifid. Haller.

—— 2. β. Lin. Huds. 2. With. Smooth, smaller, (leaves) with fewer segments. Ray syn. 163. 2. *F. Dan.* 682. *Ger.* 292. 4.

—— 3. γ. Huds. Smooth, lacerated. *Pet.* 14. 10.

—— 4. *asper.* γ. Lin. δ. Huds. 3 With. Leaves prickly, laciniated. See Ray syn. 163. 3.
Prickly Sow-th. Road sides. 5. 6. *F. Dan.* 843.

—— 5. δ. Lin. ε. Huds. 4. With. Leaves prickly, entire. See Ray syn. 163. 4. *Ger.* 291. 2.

—— 6. ζ. Huds. 5. With. Leaf roundish, margin slightly thorny. Dill. in Ray syn.— Leaves obovate, attenuated below into petioles. With. *Pluk.* 61. 5.

—— 7. η. Huds. 6. With. Leaves narrow, oblong, very thorny on the margin. Dill. in R. 163. 6. Leaves linear-oblong, rounded at the end. With. *Pluk.* 62. 4.

Var. 8. 7. With. Stemless, leaves spread on the ground, deeply pinnatifid, segm. sharply toothed. —— Portland Island. With. — 5. ——

919. Lap'sana. *Recept.* naked. *Cal.* calycled, all the inner scales channelled.

commu'nis. 1. L. Cal. when in fruit angular, pedunc. slender, very much branched.

Var. 2. *crispa.* Lower leaves lyrate, curled. Pers. *Com. Nipplewort.* Hedges. A. 6. 7. *Curt.*

916. Hyos'eris. *Recept.* naked. *Cal.* nearly equal. *Papp.* hairy and calycled (or imperceptible).

min'ima. 1. H. Stem divided, naked, peduncles thicker above.

Small Swine's Succory. Cornfi. A. 5. 6. *E. Bot.* 95.

929. Carli'na. *Calyx* radiate, marginal, scales (nearest the corols) long, coloured.

vulga'ris. 1. C. Stem many-flowered, corymbous, flow. terminating, ray of the calyx white.

Wild Carline Thistle. Dry past. B. 6. *Ger.* 1159. 1.

923. Arc'tium. *Cal.* globular, scales with inflected hooks at the point.

Lap'pa. 1. A. Leaves cordate, unarmed, petioled.

Burdock. Road sides. B. 7. 8. *Curt.* 298.

Var. 2. β. Lin. sp. 7. Huds. 2. With. Heads roundish, rather large, brownish purple, covered with a whitish tomentum, stem dark red. Ray syn. 197. 4. *Pet.* 23. 5.

—— 3. β. Huds. 2. With. Heads smooth, very large, an inch in diam., green, cor. purplish. Ray syn. 196. 1.

—— 4. δ. Huds. 4. With. Heads of the size of a hazel nut, smooth, broadish at the base, gradually narrower above, brown, cor. purple. Dill. in R. 197. 3. *Pet.* 23. 3.

—— 5. ε. Huds. 5. With. Heads of the colour and size of var. 4, but rounder, and covered with a cobweb-like tomentum. Dill. in R. 197. 5. *Pet.* 23. 4.

—— 6. ζ. Huds. Heads small, elegantly reticulated. Dill. in R. 197. 6. *Pet.* 23. 4.

—— 7. 6. With. Heads leafy. Dill. in Ray 197. 2. *Pet.* 23. 2.

925. Car'duus. *Cal.* ovate (ventricose) imbricated, scales thorny. *Recept.* hairy.

1. *Leaves decurrent.*

1. C. Leaves toothed, thorny at the margin, flow. racemous, erect, pedunc. unarmed. *palus'tris.*
Marsh Thistle. Marshy mead. P. 7. *Pet.* 21. 4.

2. C. Leaves sinuated, thorny at the margin, calyxes peduncled, solitary, erect, villous. C. *crispus.* Huds. *acanthoi'des.*
Welted Thistle. Rubbish, &c. A. 6—9. *Curt.*

3. C. Leaves pinnatifid, thorny at the margin, branches straight, flowers crowded, sessile, calyxes almost cylindrical, scales erect, but open, pungent. Curt. With. C. *acanthoides.* Huds. *tenuiflo'rus.*
Slender-flowered Th. Hedges, &c. P. 7. 8. *Curt.*

4. C. Leaves pinnatifid, hispid, segm. diverging, cal. ovate, thorny, villous, stem hairy. *lanceola'tus.*
Spear Thistle. Rubbish, &c. B. 7. 8. *E. Bot.* 107.

5. C. Leaves semi-decurrent, thorny, flow. cernuous, calyx-scales spreading upwards. *nu'tans.*
Musk Thistle. Calc. past. A. 6. 7. *F. Dan.* 675.

2. *Leaves sessile.*

6. C. Leaves embracing the stem, hastato-pinnatifid, thorny, cal. leafless, thorns channelled, doubly thorny. *maria'nus.*
Milk Thistle. Road sides, &c. A. 8. *Curt.* 148.

7. C. Leaves sessile, pinnatifid, segm. 2-rowed, the alternate ones erect, calyx globular, villous. *erioph'orus.*
Woolly-headed Th. Meadows. B. 7. *E. Bot.* 386.

8. C. Leaves sessile, half-embracing the stem, lanceolate, slightly toothed, ciliate, with unequal thorns, stem mostly 1-flowered. Huds. With. (Stem tomentous, 2-leaved.) *praten'sis.*
Meadow Th. Mead. P. 5. 6. *Ger.* 1183. 1. *E. B.* 177.

9. C. Leaves embracing the stem, lanceolate, toothed, ciliate with small unequal thorns, stem unarmed. (Leaves whitish underneath, none laciniated.) *helenioi'des.*
Melancholy Th. M. past. P. 6. 7. *Ger.* 1183. 2.
Var. 2. *heterophyllus.* β. Huds. 2. With. Leaves

embracing the stem, lanceolate, ciliate, (upper) entire, and (lower) laciniated, stem about 1-flowered, calyx unarmed.

Obs. This is made a distinct species by Lin., but Huds. has found it growing from the same root with C. *helenioides*.

acau'lis. 10. C. Stemless, calyx smooth.
Dwarf Thistle. Mount. past. P. 7. *E. Bot.* 161.
Var. 2. *caulescens.* β. Pers. Stem villous, stem-leaves scattered, 1 smaller. *Willden.* 6. 11.

927. ONOPOR'DON. *Recept.* like a honeycomb. *Cal.* scales mucronate.

Acanth'ium. 1. O. Calyxes squarrose, scales (subulate) spreading, leaves ovato-oblong, sinuated. (Stem with straight wings, running up the calyx.)
Woolly Onopordum. Rubbish, &c. B. 7. *Curt.* 334.

924. SERRAT'ULA. *Cal.* almost cylindrical, imbricated, awnless.

tincto'ria. 1. S. Leaves lyrato-pinnatifid, terminating segment largest, florets all of the same form.
Com. Saw-wort. Woods, &c. P. 7. *E. Bot.* 38.
Var. 2. 3. With. All the leaves entire. WOOD. *Ger.* 713. 1.
—— 3. 4. With. Lower leaves entire, the upper part cut. HALL. *Gerard* 576. 2.
—— 4. 5. With. All the leaves laciniated. HALL. pinnatifid, segments lanceolate, serrated, without the large terminating one. WITH. *Zanon.* 94.

alpi'na. 2. S. Calyxes somewhat hirsute, ovate, leaves undivided.
Mount Saw-wort. High mount. P. 8. 9. *Lightf.* 19.
Var. 2. *cynoglossifolia.* β. Lin. 2. With. Leaves lanceolate, narrow. HALL. RAY syn. 193. 3.—
—— Snowdon, &c. *F. Dan.* 37.
—— 3. β. Huds. Leaf narrow, denticulate. RAY syn. 193. 4.
—— Near Llanberys, Caernarv. ——

arven'sis. 3. S. Leaves toothed, thorny. The habit of a Carduus.
Corn Saw-wort. Road sides, &c. P. 7. *F. Dan.* 644.
Var. 2. Leaves smoother, scarcely thorny, not sinuated, nor so deeply divided, RAY syn. 194. 6. *Gerard* 1011. 5.

935. EUPATO'RIUM. *Recept.* naked. *Pappus* feathery. *Cal.* imbricated, oblong. *Style* cloven half-way down, long.

1. E. Calyxes 5-flowered, leaves digitate. *cannabi'-num.*
Hemp Agrimony. Banks of riv. P. 7. 8. *E. B.* 428.

942. SANTOLI'NA. *Recept.* chaffy. *Papp.* 0. *Cal.* imbricated, hemispherical.

1. S. Flow. corymbous, leaves oblong, obtuse, crenate, very tomentous. E. BOT. HUDS. WITH. Athanasia *maritima.* Lin. *marit'ima.*
Sea Cotton-weed. Sea shore. P. 8. 9. *E. Bot.* 141.
Obs. It is properly referred to Santolina, as the seeds are destitute of a pappus.

943. ATHANA'SIA. *Recept.* chaffy. *Pappus* chaffy, very short. *Cal.* imbricated.

1. A. Pedunc. 2-flowered, leaves lanceolate, crenate, obtuse, tomentous. (Seeds 2-edged, destitute of a pappus. A species of Santolina? An intermediate plant between Ath. and Sant. See Santolina *maritima.* *marit'ima.*

932. BI'DENS. *Recept.* chaffy. *Papp.* with rough straight awns. *Cal.* imbricated. *Cor.* more rarely furnished with 1 or 2 radiate florets.

1. B. Leaves lanceolate, embracing the stem, flow. cernuous, seeds erect. *cer'nua.*
Nodding Double-tooth. Wet ditches. A. 7. 8. *Curt.*
Var. 2. With radiate florets. RAY syn. 187. 2.
Frequently on the same plant with var. 1. WOODW. *F. Dan.* 841.
—— 3. Very small. DILL. in Ray syn. 188. 3. *Tab.* 7. *F. Dan.* 312. left-hand fig.

2. B. Leaves 3-cleft, calyxes somewhat leafy, seeds erect. *tripartit'a.*
Trifid Double-tooth. Watery pl. A. 7. 8. *Curt.* 237.
Var. 2. *pumila.* Stem very simple (or somewhat branched), 1-flowered, bractes several, leaves (simple) serrated, root simple. ROTH. Mistaken for B. *minima.* Persoon. — *F. Dan.* 312. right-hand fig.
Obs. Linnæus (Sp. pl. P. 1165.) refers to B. *tripartita* β. minima. Huds. as his *minima*; and Withering considers the dwarf var. of B. *cernua* as the *minima* Lin.; but as it appears rather doubtful whether either of these var. be the true B. *minima* of Linnæus, it is entered here as a distinct species.

3. B. Leaves lanceolate, sessile, flowers and seeds erect. (Root creeping, filiform, jointed, leaves generally ciliate, obtuse, here and there some- *min'ima.*

what toothed, flower erect, with 2, rarely 3 bractes at the base. Roth. germ. 3. p. 300. See Persoon.

—— Moist places. A. — *Ray* 7. 2. (Sp. pl. 1165.)

POLYGAMIA SUPERFLUA.

945. Artemis'ia. *Recept.* somewhat hairy, or naked. *Papp.* o. *Cal.* imbricated, the scales rounded, converging. *Cor.* of the ray o.

1. *Procumbent before flowering.*

campes'tris. 1. A. Leaves many-cleft, linear, stems procumbent, rod-like. (Racemes simple, alternate, with solitary flowers.)
Field Wormwood. Road sides. P. 7. *E. Bot.* 338.

marit'ima. 2. A. Leaves many-parted, tomentous, racemes cernuous, female florets 3.
Sea W. Sea shores. P. 8. *Woodv.* 123. *Ger.* 1099. 1.

2. *Erect, herbaceous, leaves compound.*

Absinth'ium. 3. A. Leaves compound, many-cleft, flowers somewhat globular, pendulous, recept. villous.
Wormwood. Road sides. P. 8. *Woodv.* 120.

vulga'ris. 4. A. Leaves pinnatifid, flat, incised, tomentous underneath, racemes simple, recurved, florets of the ray 5.
Mugwort. Ditch-banks. P. 8. *Woodv.* 121.

3. *Leaves simple.*

cærules'cens. 5. A. Stem-leaves lanceolate, entire, root-leaves many-cleft, fem. florets 3.
Bluish Mugwort. Sea shores. P. 8. *Ger.* 1104. 3.

944. Tanace'tum. *Recept.* naked. *Papp.* with a slight margin. *Cal.* imbricated, hemispherical. *Cor.* of the ray indistinct, 3-cleft (sometimes none, and all the florets herm.).

vulga're. 1. T. Leaves bipinnate, incised, serrated.
Com. Tansy. Banks of rivers. P. 6. 7. *Woodv.* 115.
Var. 2. *crispum.* β. Lin. Huds. 2. With. Leaves curled. Dill. in R. 188. 1. *Gerard* 525.

950. Conyz'a. *Recept.* naked. *Papp.* simple. *Cal.* imbricated, roundish. *Cor.* of the ray 3-cleft.

2. C. Leaves lanceolate, acute, stem herbaceous, corymbous, calyxes squarrose. *squarro'sa.*
Great Flea-bane. Mount. past. B. 7. 8. *Ger.* 792.

946. GNAPHA'LIUM. *Recept.* naked. *Pappus* feathery. *Cal.* imbricated, marginal scales rounded, scariose, coloured.

1. *Herbaceous, Chrysocoma (calyxes yellow).*

1. G. Leaves half-embracing the stem, ensiform, repand, obtuse, pubescent on both sides, flow. conglomerate. *lu'teo-al'bum.*
Jersey Cudweed. Dry banks. A. 7. 8. *Ger.* 643. 13.

2. *Herbaceous, Argyrocoma (calyxes white).*

2. G. Leaves lineari-lanceolate, acuminate, alternate, stem branched above, corymbs fastigiate. (Leaves soft, erect, reflected at the margin. Flow. whitish, the disk yellow. PERS.) *margarita'ceum.*
American Cudweed. Meadows. P. 8. *Ger.* 641. 8.

3. G. Runners procumbent, stem very simple, corymb simple, flow. divided (dioicous). *dioi'cum.*
Mount. Cat's-foot. Mount. past. P. 5. 6. *E. Bot.* 267.

3. *Filaginoidea* (resembling the Filagos).

4. G. Stem herbaceous, undivided, erect, (leaves lanceolate, attenuated at the base) scattered (in a crowded terminating leafy spike). *sylvat'icum.*
Mount. Cudw. Highl. Mount. P. 8. *F. Dan.* 524.

5. G. Stem erect, terminating in a leafy compound spike, leaves lineari-lanceolate, almost naked on the upper side. E. BOT. WITH. G. *sylvaticum.* Huds. *rec'tum.*
Upright Cudweed. Sandy past. P. 8. *E. Bot.* 124.

6. G. Stem herbaceous, simple, procumbent, flowers scattered. G. *alpinum.* Lightf. *supi'num.*
Dwarf Cudw. Mount. past. P. 7. 8. *Lightf.* 20. 2.

7. G. Stem herbaceous, branched, diffuse, flow. crowded, terminating. *uligino'sum.*
Marsh Cudweed. Watery pl. A. 8. *F. Dan.* 852.

8. G. Stem dichotomous, erect, herbaceous, flow. subulate, axillary, leaves filiform. HUDS. WITH. *gal'licum.*
Corn Cudw. Gravelly cornfi. A. 7. 8. *Pet.* 18. 12.

9. G. Stem somewhat dichotomous, herbaceous, erect, flow. conical, axillary and terminating. HUDS. WITH. *monta'num.*
Least Cudweed. Sandy past. P. 7. 8. *Pet.* 18. 11.

arven'se? 10. G. Stem panicled, flow. conical, lateral. See With.

german'i-cum. 11. G. Panicle dichotomous, flow. rounded, axillary, hirsute, leaves acute.
Com. Cudw. Road sides, &c. A. 7. 8. *F. Dan.* 997.

Obs. Gnaphalium *gallicum*, *montanum*, *arvense* and *germanicum* are ranked as species of Filago by Lin. See Filago.

962. BEL'LIS. *Recept.* naked, conical. *Papp.* 0. *Cal.* hemispherical, scales equal. *Seeds* obovate.

peren'nis. 1. B. Scape naked.
Com. Daisy. Pastures, &c. P. 3—9. *Curtis.*

967. MATRICA'RIA. *Recept.* naked. *Papp.* 0. *Cal.* hemispherical, imbricated, scales solid at the margin (not scariose), rather acute.

Parthe'ni-um. 1. M. Leaves compound, flat, leaflets ovate, incised, pedunc. branched.
Com. Feverfew. Hedges, &c. P. 6. 7. *Ger.* 652. 1.

marit'ima. 2. M. Recept. hemispherical, leaves bipinnate, somewhat fleshy, convex above, keeled underneath. M. *inodora* γ. Huds.
Sea Feverfew. Sandy sea coasts. P. 7. *Ray* 7. 1.

Chamomil'la. 3. M. Recept. conical, rays spreading, calyx-scales equal (membranous) at the margin. (Leaves many-cleft, capillary, seeds striated.)
Chamomile Feverfew. Road sides. A. 5—8. *Curt.* 331.
Var. 2. *suaveolens* β. Huds. 2. With. M. *suaveolens* Lin. Receptacle conical, rays deflected, calyx-scales equal at the margin. *Gerard* 15. 1.
Sweet-scented Feverf. Road sides. A. 5—8. *Ger.* 15. 1.

966. CHRYSAN'THEMUM. *Recept.* naked. *Papp.* marginate. *Cal.* hemispherical, imbricated, scales membranous at the margin.

1. *Leucanthema.* (*Florets of the ray white.*)

Leucan'them-emum. 1. C. Leaves embracing the stem, oblong, serrated upwards, toothed below.
Ox-eye. Dry meadows, &c. P. 6. 7. *Curt.* 348.

inodo'rum. 2. C. Leaves pinnate, many-cleft, stem branched, diffuse. (Florets of the ray bent back.) Matricaria *inodora*. Huds.
Chamomile Goldens. Cornfields. A. 7—9. *F. D.* 696.

Obs. It is distinguished from Anthemis *Cotula* and *arvensis* by its naked recept.; and from Matricaria *Chamomilla* by its flattish calyx, its scales, which are brown and uneven at the edge, and its hemispherical receptacle. See With.

2. *Chrysanthema.* (*All the Florets yellow.*)

3. C. Leaves embracing the stem, laciniated upwards, dentato-serrated below. *seg'etum.*
Corn Marigold. Cornfi. A. 6—10. *F. Dan.* 995.
Var. 2. β. Huds. Leaf glaucous, many-cleft, flower smaller. RAY syn. 183. 2.
—— 3. γ. Huds. Leaf glaucous, neither incised, nor serrated. See DILL. in R. 183. 3.

959. DORO'NICUM. *Recept.* naked. *Papp.* simple. *Calyx*-scales in 2 rows, equal, longer than the disk. *Seeds* of the ray naked, without a pappus.

1. D. Leaves cordate, obtuse, slightly toothed, root-leaves petioled, stem-leaves embracing. *Pardalian'ches.*
Leopard's-bane. Near Harrowg. P. 5. 6. *Ger.* 762.

956. IN'ULA. *Recept.* naked. *Papp.* simple. *Anthers* ending in 2 bristles at the base.

1. I. Leaves embracing the stem, ovate, wrinkled, tomentous underneath, calyx-scales ovate. *Hele'nium.*
Elecampane. Moist mead. P. 7. 8. *Woody.* 108.
2. I. Leaves embracing the stem, cordato-oblong, stem villous, panicled, calyx-scales setaceous. *dysenter'ica.*
Flea-bane. Moist pastures. P. 8—10. *Curt.* 164.
3. I. Upper leaves embracing the stem (undulated), lineari-lanceolate, obtuse, stem erect, calyxes cylindrical. WITH. I. *uliginosa* Sibth. I. *Pulicaria* Huds. not Lin. *cylin'drica.*
Less Flea-bane. Road sides. — 8. 9. *Curt.* 156.
4. I. Leaves linear, fleshy, (generally) 3-pointed, *Golden Elecamp.* Salt marshes. P. 8. *E. Bot.* 68. *crithmifo'lia.*

951. ERIG'ERON. *Recept.* naked. *Pap.* hairy. *Cal.* of the ray linear, very narrow.

1. E. Flowers panicled, rough-haired, leaves lanceolate, ciliate. *canaden'se.*
Canada Flea-bane. Rubbish. A. 8—10. *Pet.* 16. 12.
2. E. Stem about 2-flowered, calyx rather hirsute, leaves obtuse, villous underneath. *alpi'num.*
Alpine Flea-bane. Ben Lawers. P. 7. *E. Bot.* 464.
3. E. Peduncles alternate, 1 (to 3)-flowered. *a'cre.*
Blue Erigeron. Dry pastures, &c. B. 7—9. *Curt.*

955. SOLIDA'GO. *Recept.* naked. *Papp.* simple. *Cor.* of the ray about 5. *Cal.* scales imbricated, close.

Vir'ga-au'rea. 1. S. Stem rather flexuose (branched), angular, racemes panicled, erect, crowded.
Var. 1. Stem branched, leaves strongly serrated. With. *E. Bot.* 301.
—— 2. Stem branched, leaves indistinctly serrated. With. *Ger.* 430. 1.
Golden Rod. Hedges, &c. P. 8. 9. ——
—— 3. Stem serpentine, unbranched. See With.

cam'brica. 2. S. Leaves lanceolate, somewhat serrated, rather hoary, panicles corymbous, terminal (pedunc. sometimes 1-flowered). Huds. (Stem straight, unbranched. See With.)
Welch Golden Rod. Mountains. P. 7. *Pet.* 16. 11.

Lappon'ica. 3. S. Stem straight, unbranched, root-leaves ovate, on bordered petioles, stem-leaves lanceolate, sessile, flow. in a spike-like terminating raceme, and in the bosom of the upper leaves. With.
—— Found in Scotland, &c. ——

957. Cinera'ria. *Recept.* naked. *Papp.* simple. *Cal.* simple, many-leaved, equal.

palus'tris. 1. C. Flow. corymbous, leaves broad-lanceolate, dentato-serrated, stem villous.
Marsh Flea-wort. Marshes. P. 6. 7. *E. Bot.* 151.

integrifo'lia. 2. C. Flow. in a simple involucred umbel, stem-leaves nearly linear, root-leaves oblongo-ovate, or spatulate, woolly, indistinctly toothed. E. Bot. With. C. *integrifolia* β. pratensis Murray. C. *Alpina* Huds. γ. Lin. Sp. Pl.
Mount. Flea-wort. Hilly past. P. 5. 6. *E. Bot.* 152.

953. Sene'cio. *Recept.* naked. *Papp.* simple. *Cal.* cylindrical, calycled, scales sphacelated at the point.

1. *Flowers flosculous* (viscosus).

vulga'ris. 1. S. Corols naked, leaves pinnato-sinuated, embracing the stem, flow. scattered.
Groundsel. Rubbish. A. 4—9. *Curt.*

2. *Flowers radiate, the ray revolute.*

visco'sus. 2. S. Corols revolute, leaves pinnatifid, viscid, calyx-scales loose, as large as the (hairy) perianth.
Stinking Groundsel. Sandy gr. A. 8—10. *E. Bot.* 32.

sylvat'icus. 3. S. Corols revolute, leaves pinnatifid, toothed, stem corymbous, erect. S. *viscosus* β. Huds.
Bushy Groundsel. Ditch-banks. A. 7. *Ger.* 278. 2.

3. *Flowers radiate, ray spreading, leaves pinnatifid.*

4. S. Corols radiate, all the leaves pinnate, leaflets linear, pedunc. corymbous, stem erect (tomentous; lower leaves on long petioles). *ten'uifo'lius.*
Hoary Groundsel. Hedges. P. 8. *Jacq. Aust.* 178.
Var. 2. Plant but little tomentous, lower leaves sessile, segments broader. With. S. *erucifolius.* Huds. Curt., not Lin. Afz. *Curt.* 294.
Obs. The following char. of S. *erucifolius* is given by Lin. "Cor. radiant, leaves pinnatifid, toothed, somewhat rough-haired, stem erect." (By cultivation becoming smooth.—Leaves villous underneath, pinnatifid, segm. linear, reflected at the margin, incised, the outermost 3-cleft, stem tall, villous. Pers.)

5. S. Cor. radiate, leaves pinnato-lyrate, segments finely laciniated, stem erect. *Jacobæ'a.*
Ragwort. Road sides, &c. P. 7. *F. Dan.* 944.
Var. 2. β. Lin. Flowers without rays. Sher. in Ray. 177. 1.
—— 3. Flowers without rays, whole plant hoary, with a dense tomentous substance. With.

6. S. Corols radiate, leaves toothed, root-leaves ovate, stem-leaves pinnatifid, the outermost segment larger. Huds. *aquat'icus.*
Water Groundsel. Watery pl. P. 7. 8. *Pet.* 17. 2.

4. *Fl. radiate, ray spreading, leaves undivided.*

7. S. Cor. radiate, leaves ensiform, acutely serrated, rather villous underneath, stem stiff and straight. *paludo'sus.*
Bird's-tongue. Marshy ditches. P. 8. *Ger.* 483. 6.

8. S. Cor. radiate, flow. corymbous, leaves lanceolate, serrated, smoothish. *saracen'icus.*
Broad-leaved Gr. Ditch-banks. P. 7. 8. *J. Aus.* 186.

952. Tussila'go. *Recept.* naked. *Papp.* simple. *Cal.* scales equal, as long as the disk, somewhat membranous.

1. T. Scape 1-flowered, imbricated, leaves somewhat cordate, angular, finely toothed. *Far'fara.*
Com. Colt's-foot. Moist places. P. 3. 4. *Curt.*

2. T. Thyrsus ovate, fem. florets naked, few. (2, or 3, scarcely petaloid, amongst the hermaph. —Almost all the flor. hermaph., patulous, pistils projecting, club-shaped. See Pers.) *Petas'ites.*
Butterbur. Banks of rivers. P. 3. 4. *Curt.*

Obs. Dr. Smith has suggested, that this is the male, and P. *hybrida* the fem. plant, forming together only one dioicous species. He has formed this opinion from observing that in the herm. flor. of T. *petasites* the stigmas are thick and barren, the anthers united, and the fem. flor. few, or altogether wanting; whilst in T. *hybrida* the anthers of the herm. flor. (which are very few in number) are separate, or scarcely at all syngenesious, and the fem. florets very numerous. See E. Bot. If this opinion were well founded, we should expect to find T. *hybrida* wherever any considerable number of plants of T. *petasites* occurs, and that T. *petasites* would rarely be productive unless the other were present.

hy'brida. 3. T. Thyrsus oblong, fem. flor. naked, numerous. (Thyrsus conical, somewhat nodding, fem. flor. very numerous, herm. 2, or 3, central, pistils bifid. PERS.)
Stalked Butter-bur. Banks of riv. P. 3.4. *E. Bot.* 430.

954. As'TER. *Recept.* naked. *Pappus* simple. *Cor.* of the ray more than 10. *Cal.* imbricated, lower scales patulous.

1. *Herbaceous, leaves entire, pedunc. naked.*

Tripo'lium. 1. A. Leaves (generally) lanceolate, very entire, fleshy, smooth, branches unequal, flow. corymbous.
Sea Starwort. Muddy sea coasts. *P.* 8.9. *E. Bot.* 87.
Var. 2. All the florets tubular. WITH. RAY syn. 175. 2. *Pet.* 17. 12.

970. AN'THEMIS. *Recept.* chaffy. *Papp.* 0. *Cal.* hemispherical, nearly equal. *Florets* of the ray more than 5.

1. *Ray of a different colour, or white.*

arven'sis. 1. A. Recept. conical, chaff setaceous, seeds crowned with a margin.
Corn Chamomile. Cornfields. B. 6. 7. *Pet.* 19. 8.
Var. 2. All the florets ligulate. DILL. in R, 186.4.

Cot'ula. 2. A. Recept. conical, chaff setaceous, seeds naked.
Stinking Cham. Road sides, &c. A. 5—8. *Curt.* 329.
Var. 2. All the florets ligulate. DILL. in R. 185,3.

nob'ilis. 3. A. Leaves pinnato-compound, linear, acute, somewhat villous.
Com. Chamomile. Boggy past. P. 8. 9. *Woodv.* 103.
Var. 2. Florets of the ray 0. DILL. in R. 185. 2. *Ger.* 754. 2.

marit'ima. 4. A. Leaves pinnate, finely toothed, fleshy, naked, dotted, stem prostrate, calyxes rather tomentous.
Sea Cham. Sea coast. P. 7. 8. *J. B.* iii, 122. 1.

2. *Ray of the same colour, or yellow.*

5. A. Leaves bipinnate, serrated, tomentous underneath, stem corymbous. *tincto'ria.*
Yellow Cham. Sunny mead. P. 7. 8. *F. Dan.* 741.

971. ACHILLE'A. *Recept.* chaffy. *Papp.* o. *Cal.* ovate, imbricated. *Florets* of the ray about 4 (to 10).

1. A. Leaves lanceolate, acuminate, finely serrated. *Ptarmi'ca.*
Sneezewort Yarrow. Moist pl. P. 7. 8. *Curt.* 343.
Var. 2. Fl. double. RAY syn. 183. 3. *Ger.* 606. 2.

2. A. Leaves bipinnate, naked, segments linear, toothed, stems furrowed upwards. *Millefo'lium.*
Com. Yarrow. Road sides. P. 6—8. *F. Dan.* 737.

POLYGAMIA FRUSTRANEA.

984. CENTAU'REA. *Recept.* bristly. *Pappus* simple. *Cor.* of the ray funnel-shaped, longer, irregular.

1. Cyani, *calyx-scales serrato-ciliate.*

1. C. Cal. serrated, leaves linear, very entire, the lowest toothed. *Cya'nus.*
Blue-bottle, Cornfields. A. 6. 8. *E. Bot.* 277.

2. C. Cal. scales ovate, ciliate, ciliæ capillary, erect, leaves lyrato-angular, (upper leaves nearly entire, ovato-lanceolate) fl. all flosculous. *ni'gra.*
Knapweed. Pastures, &c. P. 7. 8. *E. Bot.* 278.
Var. 2. Flow. radiate. WITH. Common in Wiltshire.

3. C. Cal. ciliate, leaves pinnatifid, segments lanceolate. *Scabio'sa.*
Greater Knapweed. Cornfields. P. 7. *E. Bot.* 56.

2. Calcitrapæ, *calyx-thorns compound.*

4. C. Cal. somewhat doubly thorned, sessile, leaves pinnatifid, (segm.) linear, toothed, stem hairy. (Cor. of the ray purple, of the disk whitish.) *Calcitra'pa.*
Star Thistle. Road sides. A. 7. 8. *E. Bot.* 125.

5. C. Cal. doubly thorny, solitary, branch-leaves decurrent, unarmed, lanceolate, root-leaves lyrato-pinnatifid. (Flow. yellow.) *solstitia'lis.*
St. Barnaby's Centaury. Hedges. A. 7. 8. *E. B.* 243.

POLYGAMIA NECESSARIA.

990. CALEN'DULA. *Recept.* naked. *Pappus* 0. *Cal.* many-leaved, equal. *Seeds* of the disk membranous.

arven'sis. 1. C. Seeds cymbiform, muricated, incurved, the outermost erect, stretched out.
—— Shore at Falmouth. A. 8—10. *Gerard* 603.

995. FILA'GO. *Recept.* naked. *Papp.* 0 (or very short). *Cal.* imbricated. *Fem. Florets* amongst the scales of the calyx (partly without petals).

arven'sis. 1. F. Stem panicled, flow. conical, lateral.
german'ica. 2. F. Panic. dichotomous, flow. rounded, axillary, hirsute, leaves acute.
gal'lica. 3. F. Stem dichotomous, erect, flow. subulate, axillary, leaves filiform.
monta'na. 4. F. Stem rather dichotomous, erect, flow. conical, terminating, and axillary.
See Gnaphalium *arvense*, &c. Page 183. & 4.

MONOGAMIA.

1005. JASIO'NE. Common *Calyx* 10-leaved. *Cor.* 5-petalled, regular. *Caps.* inferior, 2-celled (many-seeded, crowned by the proper calyx).

monta'na. 1. JASIONE.

Obs. The economy of the flowers in this genus is very singular. The florets of the disk have fertile anthers, which are united with one another only at the base, and club-shaped barren hirsute pistils; on the contrary the florets of the ray, which are furnished with true emarginate stigmas, proper for fertilizing the seeds, have barren stamens; hence the proper stigmas receive the pollen from the club-shaped ones, upon which it is first received, as they pass through the anthers. See Persoon.

Mountain Jasione. Sandy past. A. 6. 7. *Curt.* 245.

1006. LOBE'LIA. *Cal.* 5-cleft. *Cor.* 1-petalled, irregular. *Caps.* inferior, 2 or 3 (to 5) -celled.

Dortman'na. 1. L. Leaves linear, 2-celled, very entire, stem nearly naked.
Water Gladiole. Lakes in mount. c. P. 7. 8. *E. B.* 140.

2. L. Stem rather erect, lower leaves roundish, crenate, upper lanceolate, serrated, flow. racemous. *u'rens.*

Acrid L. Slope of Kilmington Hill. P. 10. *Curt.*

1007. VI'OLA. *Cal.* 5-leaved. *Cor.* 5-petalled, irregular, with a spur behind. *Caps.* superior, 3-valved, 1-celled.

1. *Stemless.*

1. V. Leaves cordate, piloso-hispid. (Petioles rough with hair, bractes below the middle of the peduncle. CURT. *hir'ta.*

Hairy Violet. Calcareous soil. P. 3. 4. *Curt.*

2. V. Leaves cordate, stolons creeping. (Bractes above the middle of the peduncle. CURT.) *odora'ta.*

Sweet Violet. Ditch-banks. P. 3. 4. *Curt.*

3. V. Leaves reniform (reniformi-cordate, somewhat convolute). *palus'tris.*

Marsh Violet. Mossy bogs. P. 4. 5. *Curt.* 217.

2. *Caulescent.* (*Stipules entire*, lutea.)

4. V. Stem, when becoming adult, ascending, leaves oblongo-cordate. (Cal. segments acuminate. CURT.) *cani'na.*

Dog's Violet. Hedge-banks. P. 4—6. *Curt.* 108.

Var. 2. Much smaller, spur yellowish. DILL. in Ray 364. 5. *tab.* 24. 1.

5. V. Stem ascending, leaves ovato-lanceolate. E. BOT. V. *canina* var. 3. With. *lac'tea.*

Cream-col. Violet. Pendarvis. P. 5. *E. Bot.* 445.

3. *Caulescent; Stipules pinnatifid; Stigma urceolate.*

6. V. Stem 3-sided, diffuse, leaves oblong, incised. *tric'olor.*

Var. 1. *arvensis.* β. Pers. α. Lin. Sp. Huds.—Leaves ovato-lanceolate, serrated, calyx rather longer than the corol. PERS.—Cor. white, or yellow-white, with a few purple streaks. WITH. RAY syn. 366. 11.

—— Hedge-banks. A. 5—9. *Ger.* 854. 4.

—— 2. Cor. blue, or purplish, sometimes with yellow, or white. WITH.

—— Road sides, common. *Pet.* 37. 8.

—— 3. β. Lin. Huds. 3. With. Cor. of more than 2 colours. STOKES.

Pansies. Ditch-banks. A. 5—9. *Curt.*

lu'tea. 7. V. Stem unbranched, erect, 3-cornered, leaves ciliate (with strong hairs, like an eye-lash), lower cordate, upper lanceolate. (Stipules entire, or toothed.) WITH. V. *grandiflora.* Huds. V. lutea grandiflora. RAY syn. 365. 10. not Lin. *Yellow Violet.* Mount. past. P. 5—7. *Pet.* 37. 10.

amœ'na. 8. V. Stem cylindrical, unbranched, leaves orbiculato-cordate, obtusely crenate, ciliate, veined, shining, stipules somewhat palmate. (Flow. large, purple, upper pet. obtusely ovate.) FORSTER. See Symons. P. 198.

—— Scotland. DICKSON.

1008. IMPA'TIENS. *Cal.* 2-leaved. *Cor.* 5-petalled, irregular, nectary cowled. *Caps.* superior, 5-valved.

No'li-tan'gere. 1. I. Pedunc. many-flowered, solitary, leaves ovate, joints of the stem swollen.
Touch-me-not. Banks of rivulets. A. 7.8. *F.Dan.*582.

Obs. All the plants in this order seem very properly referred by With. to the class Pentandria.

CLASS XX.

GYNANDRIA.

DIANDRIA.

1009. Or'chis. *Nectary* horn-shaped.
1010. Satyr'ium. *Nectary* purse-like (with a depressed line in the middle).
1011. O'phrys. *Nectary* somewhat keeled.
1012. Sera'pias. *Nectary* ovate, gibbous underneath.
1015. Cypripe'dium. *Nectary* inflated, ventricose.
—— Malax'is. *Nectary* erect, 1-leaved, cordate, hollow, embracing the stam. and pist. *Cor.* reversed. E. Bot. Swartz. With.

HEXANDRIA.

1022. Aristolo'chia. Hexagynous. *Cal.* 0. *Cor.* 1-petalled. *Caps.* 6-celled.

POLYANDRIA.

1028. A'rum. *Spathe* 1-leaved. *Cal.* 0. *Cor.* 0. *Stam.* above the *Pistils.*
1032. Zoste'ra. A leaf. *Cal.* 0. *Cor.* 0. *Seeds* alternate, naked. (*Caps.* alternate. *Seeds* solitary. With.)

DIANDRIA.

1009. Or'chis. *Nect.* horn-shaped, behind the flow. (*Cor.* ringent.)

1. *Bulbs undivided.*

bifo'lia. 1. O. Lip of the nectary lanceolate, very entire, horn very long, (outer) petals spreading.
Butterfly Orchis. Woods, &c. P. 6. *Curt.*
Var. 2. γ. Lin. sp. β. Huds. Var. 2. With. Leaves 2, broad, liliaceous, flowers in a thinly set spike, white, highly scented, lips narrow, spurs very long. RAY syn. 380. 17.
—— Woods. P. 5. *Ger.* 211. 1.
—— 3. β. Lin. sp. 3. With. Smaller, white, spur oblong, leaves 3 together at the root, narrower, flowering later. RAY syn. 380. 18.
Less Butterfly Orchis. Past. P. 6. *Ger.* 211. 2.

pyramida'lis. 2. O. Lip of the nect. 2-horned (at the base), 3-cleft, (segm.) equal, very entire; horn long, petals somewhat lanceolate.
Late-flowering Orchis. Mead. P. 6. 7. *E. Bot.* 110.

mas'cula. 3. O. Lip of the nect. (3, or) 4-lobed, crenulate, horn obtuse, dorsal petals reflected. (Outer petals more acute, longer, middle segment of the lip bifid, longer than the lateral ones.)
Early Orchis. Meadows, &c. P. 5. *Curt.* 121.

Mo'rio. 4. O. Lip of the nect. 4-cleft, crenulate (at the sides), horn obtuse, ascending, petals obtuse, converging. (Lip of the nect. 3-cleft, middle segm. emarginate. Pet. obtuse, with greenish lines.)
Meadow Orchis. Moist past. P. 5. 6. *Curtis.*

ustula'ta. 5. O. Lip of the nect. 4-cleft, rough with dots, horn obtuse, petals distinct.
Dwarf Orchis. Dry pastures. P. 5. 6. *E. Bot.* 18.

milita'ris. 1. O. Lip of the nect. 5-cleft, rough with dots, horn obtuse, petals confluent. (Lip 3-cleft, middle segm. 2-lobed, longer, with rough dots, pet. connate.)
Var. 2. *fusca.* O. *militaris* β. Lin. sp. Huds. Lip 3-cleft, middle segm. broad, emarginate, with a little point in the notch. WITH.
Military Orchis. Chalky soil. P. 5. *E. Bot.* 16.
Var. 3. Lip 3-cleft, segm. linear. WITH. *Ger.* 205. 2.

2. *Bulbs palmate.*

latifo'lia. 8. O. Bulbs somewhat palmate, straight, horn of the nect. conical, lip 3-lobed, reflected at the sides, bractes longer than the flowers, (Stem fistulous.)

Var. 1. α. Lin. sp. Huds. 2. With. Middle segm. of the lip obtuse, as long as the lateral ones, but only half their breadth. St.
Male-handed Or. Meadows. P. 5. 6. *Curt.* 250.

Var. 2. β. Lin. sp. 3. With. Middle segment of the lip ovate, acute, twice as long as the lateral ones. St. *Ger.* 222. 3.

9. O. Bulbs spreading, horn of the nectary shorter than the germen, lip flat, dorsal-petals erect. (Stem solid, lip crenate, 3-lobed, middle segm. narrower, very entire.) *macula'ta.*
Spotted Orchis. Woods. P. 6. *F. Dan.* 933.

Obs. The leaves are frequently found without spots.

10. O. Horn of the nect. setaceous, longer than the germ. lip 3-cleft (crenate, segm. equal), 2 of the pet. wide-spreading. *conop'sea.*
Red-handed Orchis. Meadows. P. 6. *E. Bot.* 10.

3. *Bulbs fascicled.* (Roots fibrous. With.)

(Satyrium albidum.)

11. O. Bulbs filiform, lip of the nect. ovate, very entire, stem leafless. See Ray syn. 383. *aborti'va?*
Bird's-nest Orchis. Mead. P. 5.6. *Jacq. Aus.* 193.

1010. Satyr'ium. *Nect.* behind the flow., inflated, with a depressed line in the middle, running through its whole length.

1. S. Bulbs undivided, leaves lanceolate, lip of the nectary 3-cleft, the intermediate segment (very long) linear, oblique, premorse. *hirci'num,*
Lizard Satyrion. Chalky past. P. 6. 7. *E. Bot.* 34.

2. S. Bulbs palmate, leaves oblong, (erect) obtuse, lip of the nect. linear, 3-cleft, middle segm. indistinct. *vir'ide,*
Frog Satyrion. High grav. past. P. 6—8. *E. B.* 94.

3. S. Bulbs fascicled, leaves lanceolate, lip of the nect. 3-cleft. acute, intermediate segm. obtuse. *al'bidum.*
White Satyrion. Mount. past. P. 6. 7. *F. Dan.* 115.

4. S. Bulbs fibrous; (roots fibrous, creeping. E. Bot.) leaves ovate, radical, flowers 1-rowed. *re'pens.*
Creeping Satyrion. Woods. P. 6—8. *E. Bot.* 289.

1001. O'phrys. *Nect.* (consisting of a lip only) slightly keeled underneath.

1. *Bulbs branched.*

Ni'dus a'vis. 1. O. Bulbs fibrous, fascicled, stem sheathed, leafless, lip of the nectary bifid.
Bird's-nest Ophrys. Woods, &c. P. 5. 6. *E. Bot.* 48.

coral'lorhi'za. 2. O. Bulbs branched, flexuose, stem sheathed, leafless, lip of the nect. 3-cleft.
Coral-rooted Ophrys. Moist woods. P. 8. 9. *F. D.* 451.

spira'lis. 3. O. Bulbs aggregate, oblong, stem somewhat leafy, flowers spiral, one-rowed, lip of the nectary undivided, crenate.
Triple Twayblade. Pastures. P. 8—10. *Curt.*

ova'ta. 4. O. Bulb fibrous, stem 2-leaved, leaves ovate, lip of the nectary bifid.
Common Twayblade. Woods, &c. P. 5. 6. *Curt.* 177.
Var. 2. β. Lin. With 3 leaves.
—— 3. 2: With. O. *paludosa* Huds. Smaller, sometimes 3-leaved, leaves greener and smoother, spike of flow. smaller, roots creeping. Ray syn. 385. 3. Leaves acute. Woodw.

corda'ta. 5. O. Bulb fibrous, stem 2-leaved, leaves cordate. (Lip bifid, with a tooth on each side at the base.)
Least Twaybl. Mount. heaths. P. 6. 7. *E. Bot.* 358.

2. *Bulbs round.*

Læsel'lii. 6. O. Bulb roundish, scape naked, triangular, lip of the nectary ovate (pet. linear). O. *lilifolia* β. Huds,
Dwarf Twayblade. Moors. P. 5—7. *E. Bot.* 47.

Monor'chis. 7. O. Bulb globular, scape naked, lip of the nectary 3-cleft, cruciform.
Yellow Orchis. Barren pastures. P. 7. *E. Bot.* 71.

anthropoph'ora. 8. O. Bulbs roundish, scape (stem) leafy, lip of the nect. linear, 3-cleft, middle segment elongated, bifid.
Green-man Orchis. Chalky past. P. 6. *E. Bot.* 29.

muscif'era. 9. O. Bulbs roundish, scape (stem) leafy, lip of the nect. (somewhat convex, downy above) 4-cleft. Huds.
Fly Orchis. Calcareous soil. P. 5. 6. *E. Bot.* 64.

apif'era. 10. O. Bulbs roundish, scape (stem) leafy, lip of the nect. 5-lobed, lobes inflected underneath. Huds. (Lip shorter than the petals. Woodw.)
Bee Orchis. Meadows, &c. P. 6. *Curtis.*

aranif'era. 11. O. Bulbs roundish, scape (stem) leafy, lip of the nect. roundish, entire, emarginate, convex. Huds. (Lip longer than the petals. Woodw.)
Spider Ophrys. Chalky past. P. 4. 5. *E. Bot.* 65.

12. O. Bulb roundish, scape nearly naked, 5-cornered, leaves rough at the end, lip of the nect. entire. See Malaxis *paludosa*. *paludo'sa.*

1012. SERA'PIAS. *Nectary* ovate, gibbous, lip ovate. (*Cor.* 6-petalled, spreading. *Caps.* inferior, one-celled, 3-valved. WITH.)

1. S. Bulbs fibrous, (roots creeping,) leaves ovate, embracing the stem, flow. rather cernuous (lip pointed, entire, shorter than the petals). *latifo'lia.*
Com. Helleborine. Woods. P. 7. 8. *E. Bot.* 269.
Var. 2. Leaves narrower, closer, flow. later, dark-coloured. RAY. WITH.

2. S. Bulbs fibrous, leaves ensiform, (lanceolate) sessile, flow. pendulous (lip crenate, obtuse, longer than the pet. WITH.). S. *palustris* Lightf. E. Bot. S. *latifolia* γ. Huds. *longifo'lia.*
Marsh Helleborine. Watery pl. P. 7. 8. *E. Bot.* 270.

3. S. Bulbs fibrous, leaves ensiform, 2-rowed, bractes very minute, flow. erect, lip of the nect. obtuse, (one half) shorter than the petals. S. *longifolia* γ. Huds. *ensifo'lia.*
Sword-leaved Hell. Woods. P. 8. *E. Bot.* 494.

4. S. Bulbs fibrous, leaves ovato-lanceolate, bractes as long as the caps., flow. erect, lip of the nect. obtuse, shorter than the petals. S. *grandiflora* Syst. Ed. 13. Lightf. With. E. Bot. S. *longifolia* α. Huds. *lancifo'lia.*
White Helleborine. Woods. P. 5. 6. *E. Bot.* 271.

5. S. Bulbs fibrous, leaves ensiform, (lanceolate) flow. erect, lip of the nect. acute. (Bractes longer than the germen. E. BOT.)
Purple H. Hampton Common. 6. 7. *E. B.* 437.

1015. CYPRIPE'DIUM. *Nect.* ventricose, inflated, hollow.

1. C. Root fibrous, stem-leaves ovato-lanceolate. *calce'olus.*
Ladies Slipper. Woods. P. 7. *Ger.* 443. 2. *E. B.* 1.

—— MALAX'IS. *Nect.* erect, 1-leaved, cordate, concave, inclosing the *Stam.* and *Pist.* *Cor.* reversed. SWARTZ, E. BOT. WITH.

1. M. Scape 5-cornered, leaves sheathing, spatulate. O. *paludosa* Lin. *paludo'sa.*
Marsh Twayblade. Heaths. P. 6. 7. *E. Bot.* 72.

HEXANDRIA.

1022. ARISTOLO'CHIA. Hexagynous. *Cal.* 0. *Cor.* 1-petalled, linguiform, entire. *Caps.* 6-celled, inferior.

clemati'tis. 1. Leaves cordate, stem erect, flowers axillary, crowded.
Slender Birthwort. Hedges, P. 7—9. *E. Bot.* 398.

POLYANDRIA.

1028. A'RUM. *Spathe* 1-leaved, cowled. *Spadix* naked above, bearing germens below, and stamens (anthers) in the middle.

Obs. This curious genus is by Schreber, and Berkenhout, placed in Class Monoecia Order Monandria, and by Haenke, and With. in Class Polyandria Ord. Polygynia. The latter place appears to me the most proper, for what is styled the Spadix by Linnæus ought rather to be considered as an elongated receptacle, and the nectaries seem to be merely filaments, which are by a Lusus Naturæ exhibited separate from the anthers.

macula'tum. 1. A. Leaves hastate, very entire.
Wake-robin. Shady places. P. 5. *Curtis* 114.

1032. ZOSTE'RA. *Spadix* linear, on one side fruit-bearing. *Cal.* 0. *Cor.* 0. *Stam.* alternate. *Seeds* (caps.) solitary, alternate.

Obs. This genus has been removed by Thunberg, Haenke, and With. to *Polyandria Polygynia*; by Schreber to Monoecia Monandria; but Dr. Smith is of opinion that the flow. are neither *gynandrous*, as the stam. do no not grow out of the pistil, nor *polyandrous*, because the males are not collected round the central female. He thinks *Zostera* is most easily understood as a simple unilateral spike of naked flow., disposed in 2 ranks, and has referred it to Class I. Ord. 1. with this char. "*Spadix* linear, sheathed by the base of the leaf, bearing the fructif. on one side in 2 ranks. *Cal.* and *Cor.* 0. *Anth.* sessile. *Stigm.* 2, linear. *Caps.* 1-seeded."

mari'na. 1. Z. Pericarps sessile.
Com. Grass-wrack. Sea shores. P. 6—8. *E. B.* 467.

ocean'ica. 2. Z. Pericarps pedicelled, olive-form.
—— Sea shores. P. 6—8. *Ger*, 1569. 8.

CLASS XXI.

MONOECIA.

MONANDRIA.

1203. CHA'RA. Male. *Cal.* 0. *Cor.* 0.
Female. *Cal.* 4-leaved. *Cor.* 0. *Stigma* 3-cleft. *Seed* 1.

1034. ZANNICHEL'LIA. M. *Cal.* 0. *Cor.* 0.
F. *Cal.* 1-leaved. *Cor.* 0. *Pist.* 4. *Seeds* 4.

(I. *Callitriche verna.* XXII. *Salix monandra.*)

DIANDRIA.

1038. LEM'NA. Male. *Cal.* 1-leaved. *Cor.* 0.
Fem. *Cal.* 1-leaved. *Cor.* 0. *Style* 1. *Caps.* 1-celled.

TRIANDRIA.

1040. TY'PHA. M. (*Ament* cylindrical, above the fem.) *Cal.* 3-leaved. *Cor.* 0.
F. (*Ament* cylindrical.) *Cal.* capillary. *Cor.* 0. *Style* 1. *Seed* 1, pappus-bearing.

1041. SPARGA'NIUM. M. *Ament* nearly globular.) *Cal.* 3-leaved. *Cor.* 0.
F. (*Ament* nearly globular.) *Cal.* 3-leaved. *Cor.* 0. *Stigm.* (1 or) 2. *Drupe* juiceless, 1-seeded.

1046. CA'REX. M. *Ament* (oblong. *Cal.* 1-leaved) 1-flowered. *Cor.* 0.
F. *Ament* (oblong. *Cal.* 1-leaved) 1-flowered. *Cor.* 1. *Style* 1. *Seed* 1, coated.

(VI. *Juncus conglomeratus et effusus.* XXI. *Amaranthus.* XXII. *Salix triandra.*)

TETRANDRIA.

1052. BET'ULA. M. *Ament* (nearly cylindrical. *Cal.*) 3-flowered. *Cor.* 4-parted.
F. *Ament* (nearly cylindrical. *Cal.*) 2-flowered. *Cor.* 0. *Styles* 2. *Seed* 1, ovate.

1053. BAX'US. M. *Cal.* 3-leaved. *Cor.* 2-petalled.
F. *Cal.* 4-leaved. *Cor.* 3-petalled. *Stig.* 3. *Caps.* 3-celled.

1054. URTI'CA. M. *Cal.* 4-leaved. *Cor.* 0. *Nect.* glass-form.
F. *Cal.* 2-valved. *Cor.* 0. *Stigma* villous. *Seed* 1, ovate.

1328. LITTOREL'LA. M. *Cal.* 4-leaved, *Cor.* 4-cleft. *Stam.* very long.
F. *Cal.* 0. *Cor.* (mostly) 4-cleft. *Style* very long. *Seed* a nut.

—— NASMYTH'IA. See ERIOCAULON. Page 29.

(IV. *Ilex aquifolium.* XXII. *Myrica.*)

PENTANDRIA.

1056. XAN'THIUM. M. (Flow. compound.) *Cal.* common, many-leaved. *Cor.* 5-cleft. *Filaments* connected.
F. (Flow. below the males.) *Cal.* 0. *Cor.* 0. *Styles* 2. *Drupe* 2-celled.

1060. AMARAN'THUS. M. *Cal.* proper, 5-leaved. *Cor.* 0. *Stam.* 3—5.
F. *Cal.* proper, 5-leaved. *Cor.* 0. *Styles* 3. *Caps.* opening horizontally.

POLYANDRIA.

(Stam. more than 7.)

1065. CERATOPHYL'LUM. M. *Cal.* about 7-parted. *Cor.* 0. *Stam.* about 18.
F. *Cal.* about 7-parted. *Cor.* 0. *Pist.* 1. *Seed* 1.

1066. MYRIOPHYL'LUM. M. *Cal.* 4-leaved. *Cor.* 0. *Stam.* 8.
F. *Cal.* 4-leaved. *Cor.* 0. *Pist.* 4. *Seeds* 4.

1067. SAGITTA'RIA. M. *Cal.* 3-leaved. *Cor.* 3-petalled. *Stam.* about 24.
F. *Cal.* 3-leaved. *Cor.* 3-petalled. *Seeds* numerous.

1069. Pote'rium. M. *Cal.* 4-leaved. *Cor.* 4-parted. *Stamens* about 32.
F. *Cal.* 4-leaved. *Cor.* 4-petalled. *Pist.* 2. *Seeds* 2, covered.

1070. Quer'cus. M. *Cal.* 5-cleft. *Cor.* 0. *Stam.* about 10.
F. *Cal.* entire. *Cor.* 0. *Styles* about 5. *Nut* coriaceous.

1072. Fa'gus. M. *Cal.* 5-cleft. *Cor.* 0. *Stam.* about 12.
F. *Cal.* 4-cleft. *Cor.* 0. *Styles* 3. *Caps.* 2-seeded.

1073. Carpi'nus. M. *Ament* imbricated. *Cor.* 0. *Stam.* 10.
F. *Cal.* 6-cleft. *Cor.* 0. *Pist.* 2. *Nut* naked.

1074. Cor'ylus. M. *Ament* imbricated. *Cor.* 0. *Stam.* 8.
F. *Cal.* 2-leaved. *Cor.* 0. *Styles* 2. *Nut* naked.

MONADELPHIA.

1077. Pi'nus. M. *Cal.* 4-leaved. *Cor.* 0. *Stam.* many.
F. *Ament* strobilaceous. *Cor.* 0. *Pist.* 2. *Nuts* 2, winged.

SYNGENESIA.

1093. Bryo'nia. M. *Cal.* 5-toothed. *Cor.* 5-parted. *Filam.* 3.
F. *Cal.* 5-toothed. *Cor.* 5-parted. *Style* trifid. A *Berry*.

MONANDRIA.

1203. Cha'ra. M. *Cal.* 0. *Cor.* 0. *Anther* at the base of the *Germen*.
F. *Cal.* 4-leaved. *Cor.* 0. *Stigma* 5-cleft. *Seed* 1. (*Berry* Weis.—*Nut* spirally striated, 1-cell., many-seeded. Gaer.)

Obs. The flow. are considered as hermaph. by Dr. Smith, and the genus is referred to Monandria Monogynia with the annexed char. "*Cal.* 0. *Cor.* 0. *Anth.* sessile. *Style* 0.

Berry many-seeded." From the analogy of Hippuris he believes the flowers to be naked, regarding as leaflets only, what have been thought to constitute the calyx by LIN. See E. BOT. 336.

tomento'sa. 1. C. Prickles on the stem, ovate.
Brittle Stonewort. Ditches. A. 6—10. *H. ox.* 15.4.9.

vulga'ris. 2. C. Stems smooth, leaves toothed on the inner side. (Stem and leaves rough, striated, without prickles; leaves and leaflets tapering, channelled above, not jointed. E. BOT.)
Com. Stonewort. Pits, &c. A. 6—8. *E. Bot.* 336.

his'pida. 3. C. Prickles on the stem, capillary, crowded.
Prickly Stonewort. Ditches. —6—10. *E. Bot.* 463.

flex'ilis. 4. C. Joints of the stem unarmed, (semi-) transparent, broader upwards. (Of equal thickness. Sch.)
Smooth Stonewort. Ponds, &c. A. 6—10. *Schmid.* 14.

1034. ZANNICHEL'LIA. M. *Cal.* 0. *Cor.* 0.
F. *Cal.* 1-leaved. *Cor.* 0. *Pist.* about 4.
Seeds about 4.

palus'tris. 1. ZANNICHELLIA.
Var. 1. Anth. 2-celled, stig. crenate. *Mich.* 34. 2. *E. Dan.* 671.
—— 2. Anther 4-celled, stigmas entire. *Mich.* 34. 1.
Horned Pondweed. Stagnant waters. A. 6. 7. See With.

DIANDRIA.

1038. LEM'NA. M. *Cal.* 1-leaved. *Cor.* 0.
F. *Cal.* 1-leaved. *Cor.* 0. *Style* 1. *Caps.* 1 (or 2) -celled, 1 or 2-seeded.

Obs. It is difficult to find any of the species in flower, but they are known by the leaves sending out others from their sides.

mi'nor. 1. Leaves sessile, flat on both sides, roots solitary.
Least Duck-meat. Ponds, &c. A. 6—9. *Ray* 4. 1.

gib'ba. 2. L. Leaves sessile, hemispherical underneath, roots solitary. L. *minor* β. Huds.
Gibbous Duck-meat. Ponds. A. 7. 8. *Mich.* 11. 1. 2. 3.

polyrrhi'za. 3. L. Leaves sessile, roots crowded.
Greater Duck-meat. Ponds, &c. A. 5—9. *Ray* 4. 2.

trisul'ca. 4. L. Leaves petioled, lanceolate.
Ivy-leaved D. Ponds, &c. A. 6—9. *Mich.* 11. 5.

TRIANDRIA.

1040. TY'PHA. M. *Ament* cylindrical. *Cal.* obsolete, 3-leaved. *Cor.* 0.
F. *Ament* cylindrical below the males. *Cal.* villous hair. *Cor.* 0. *Seed* 1, sitting on a capillary pappus (standing on a fine bristle. WITH.)

1. T. Leaves somewhat ensiform, male and female spikes near together. *latifo'lia.*
Great Cat's-tail. Banks of ponds. P. 7. *Curt.* 171.

2. T. Leaves semi-cylindrical; male and female spike distant from each other. *angustifo'lia.*
Middle Cat's-tail. Ditches, &c. P. 7. *Curt.* 169.
Var. 2. *minima.* Aments shorter, more distant, leaves narrower, filam. shorter than the anthers. See Dill. in R. 436. 2.
Least Cat's-tail. Ditches. P. 7. *Lob.* 81.

1041. SPARGA'NIUM. M. *Ament* (heads of flow.) roundish. *Cal.* 3-leaved. *Cor.* 0.
F. *Ament* roundish. *Cal.* 3-leaved. *Cor.* 0. *Stigma* (mostly simple) bifid. *Drupe* juiceless, 1 (or 2) -seeded.

1. S. Leaves triangular at the base, the sides concave, peduncles branched. CURT. HUDS. WITH. S. *erectum* α. Lin. *ramo'sum.*
Greater Bur-reed. Ditches. P. 7. *Curt.* 342.

2. S. Leaves triangular at the base, the sides flat, peduncles unbranched. CURT. WITH. Styles longer than the germens. S. *erectum* β. Lin. sp. pl. S. *simplex* α. Huds. *sim'plex.*
Less Bur-reed. Pools, &c. P. 7. *Curt.* 341.

3. S. Leaves decumbent, flat. SP. PL. Leaves floating, plano-convex. FL. LAP. and SUEC. (Heads of flowers in a simple spike.—Style not longer than the germen. E. BOT.) WITH. S. *simplex* β. natans HUDS. *natans.*
Floating Bur-r. Slow streams. P. 7. *E. Bot.* 273.

Obs. The heads of flowers are considerably smaller than in S. *simplex*, and not so numerous, being generally 2 or 3, very seldom more; when three, the two uppermost are sessile, the lowest peduncled. In some instances the leaves are shorter than the stem, and in that case are found completely submersed after heavy falls of rain, with the spikes just above the water. When growing entirely out of the water, the plants are very dwarfish. I have one specimen in fructification not more than four inches in height.

1046. CA'REX. Male. *Ament* imbricated. *Cal.* 1-leaved. *Cor.* 0.

Fem. *Ament* imbricated. *Cal.* 1-leaved. *Cor.* 0. *Nectary* inflated, (entire, 2, or) 3-toothed. *Stigmas* (2, or) 3. *Seed* 3-sided, within the nectary.

Obs. The part which is called the nectary in the generic char., Lin. has named the capsule in the specific characters; but not very properly, as it is perfectly independent of the fruit. Dr. Smith considers it as a permanent corol. To me the terms nectary and corol appear less exceptionable than capsule; however I have chosen to adopt the last, as it is employed by Dr. Goodenough, in his two excellent papers on the British Carices inserted in the second and third vol. of the Lin. Trans., from which the arrangement and characters, &c. of the species here given are borrowed.

Obs. 2. Lin. has distributed the species of Carex in the following manner, substituting the term spike for ament.

1. *Spike single, simple.*
2. *Spikes androgynous.*
3. *Spikes distinct as to their sex, the females sessile.*
4. *Spikes distinct as to their sex, the fem. peduncled.*
5. *Spikes distinct as to their sex, male spikes more than one.*

1. *Spike single, simple.*

dioi'ca, 1. C. Spike simple, dioicous, margins of the capsule serrulated. LIN. HUDS.
Small Seg. Bogs. P. 6. 7. *F. Dan.* 369.
Var. 2. Spike androgynous; fem. flor. 1, 2, or 3, rarely more, below the males. C. *capitata.* Huds. not Lin. *Gent. Magaz.* July 1793.

pulica'ris. 2. C. Spike simple, androgynous, male above, capsules diverging, retroflected, at each end acuminate. LIN. LEERS. HUDS.
Flea Seg. Bogs. P. 6, *Leers.* 14. 1.

pauciflo'ra. 3. C. Spike simple, androgynous, fem. florets about 3, rather remote, spreading, male flow. about 1, terminating. LIGHTF. C. *patula.* Huds.
Few-flowered Seg. Mount. heaths. P. 6. *Lightf.* 6. 2.

2. *Spike compound, androgynous.* (C. atrata.)

stellula'ta. 4. C. Spikelets about 3, remote, caps. diverging, acute, mouth undivided (or very little cloven) C. *muricata.* Huds. Lightf.
—— Watery places. P. 5. 6. *Leers* 14. 7.

cur'ta, 5. C. Spikelets about 6, ovate, rather remote, naked, scales ovate, rather acute, shorter than the caps, C. *brizoides.* Huds. C. *canescens.* Lightf.
White Seg. Marshy places. P. 6. *Leers* 14. 7.

6. C. Spikel. about 6, oval, approximate, alternate, scales lanceolate, acute, as long as the caps. (Male fl. few at the base of the spikel., fem. flow. numerous, terminating.) C. *leporina.* Huds. Lightf.. *ova'lis.*
Naked Seg. Marshes, &c. P. 6. *E. Bot.* 306.

7. C. Spikelets axillary, solitary, remote, nearly sessile, (floral) leaflets very long, caps. (generally) undivided at the end. (Culm soft, weak.) HUDS. LIGHTF. *remo'ta.*
Remote Seg. Sides of ditches. P. 5. 6. *Leers* 15. 1.

8. C. Spikel. axillary, mostly 3-together, remote, sessile, leaflets long, caps. (generally) divided at the end. (Culm rigid.) *axilla'ris.*
—— Near Putney. CURT. 5. 6. *Lin. Tr.* ii.19.1.

9. C. Spike conical, compounded of several sessile spikelets crowded together, involucre none, culm incurved. *incur'va.*
—— Loose sea sand. P. 7. 8. *Lightf.* 24. 1.

10. C. Spike leafy, oblong, rather acute, spikelets many, terminating ones male, lower female, culm incurved. LIN. HUDS. LIGHTF. *arena'ria.*
Sea Seg. Sand on the sea sh. P. 6. *With.* P. 20.

11. C. Spike oblong, obtuse, spikelets several, the upper and lower female, the middle male, culm erect. C. *disticha.* Huds. Lightf. *interme'dia.*
Soft Seg. Marshes. P. 5. 6. *Leers* 14. 2.

12. C. Spike ovate, somewhat decompound, (floral) leaflet erect, spikelets rather crowded, capsules appressed, root creeping. HUDS. *divi'sa.*
Marsh Seg. Salt marshes. P. 6. *Lin. Tr.* ii. 19. 2.

13. C. Spike oblong, somewhat decompound, spikelets distinct, caps. diverging, (rather hispid at the margin) mouth divided, root fibrous. (Spikelets more numerous and contiguous than in C. *Stellulata.*) LIN. C. *spicata.* Huds. Lightf. *murica'ta.*
Spiked Seg. Watery places. P. 5. 6. *Ger.* 21. 6.
Var. 2. More slender, spike less compound, culm less rough, and roundish at the bottom. WITH, *Barr.* 19.

14. C. Spike elongated, decompound, somewhat branched at the base, lower spikelets remote, highest contiguous, caps. nearly erect. C. *canescens.* Huds. *divul'sa.*
Grey Seg. Shady places. P. 5—8. *Mich.* 33. 10.11.

vulpi'na. 15. C. Spike more than decompound, compactly branched, obtuse, spikelets with male flow. above; caps. diverging, angles of the culm very acute (the sides hollowed). Lin. Huds.
Great Seg. Bogs, &c. P. 5. 6. *E. Bot.* 307.
Var. 1. Spike decompound, bractes awned. St. *Leers* 14. 5.
—— 2. Spike compact, bractes awned. St. *Ger.* 21. 5.
—— 3. Spikes less compact, bractes pointed. St. *Leers* 14. 3. See Withering.

teretius'-cula. 16. C. Spike more than decompound, compactly-branched, somewhat acute, spikelets male above, caps. spreading, culm roundish.
—— Marshes. Crowe. P. 5. *Lin. Tr.* ii. 19. 3.

panicula'-ta. 17. C. Spike more more than decompound, panicle-branched, acute, branches alternate, somewhat remote, caps. spreading, culm 3-cornered. Lin. Huds.
Panicled Seg. Watery places. P. 5. 6. *Leers* 14. 4.
Var. 2. Raceme simple, branches distant.

3. *Spikes one male, the others female, bractes membranous (not leaf-like).*

digita'ta. 18. C. Bractes membranous, mostly leafless, sheathing half the peduncle, spikes linear, erect, male spike shorter, caps. distant. Lin. Huds.
Fingered Seg. Woods, &c. P. 5. 6. *Leers* 16. 4.

clandesti'-na. 19. C. Bractes membranous, mostly leafless, sheathing; fem. spikes oblong, remote, scarcely longer than the sheath.
—— St. Vincent's rocks. Sole. P. 4. *Mich.* 32. 8.

4. *Spikes one male, the others female, bractes leaf-like, and generally sheathing.*

pen'dula. 20. C. Sheaths long, including nearly the whole peduncle, spikes cylindrical, very long, pendulous, caps. ovate, acute. Huds. Lightf.
Pendulous Seg. Moist places. P. 5. 6. *Curt.* 180.

strigo'sa. 21. C. Sheaths long including almost the whole peduncle, spikes filiform, loose, pendulous, caps. oblong, rather 3-cornered, acute. Huds.
Loose Seg. Shady places. P. 4. 5. *Lin. Tr.* ii. 20. 5.

præ'cox. 22. C. Sheaths short, nearly as long as the peduncle, spikes approximated, male spike somewhat club-shaped, fem. ovate, caps. roundish, pubescent. Jacq. C. *montana.* Huds. Lightf.
—— Moist heaths. P. 4. 5. *Ger.* 22. 8. upper fig.

23. C. Sheaths short, nearly as long as the pedunc.; male spikes generally 2, linear; fem. ovate, remote, caps. rough-haired. LIN. C. *tomentosa*. Lightf. *filifor'mis.*

Downy Seg. Heaths. P. 6. *Lin. Tr.* ii. 20. 5.

24. C. Sheaths short, nearly as long as the pedunc., leaflet diverging (so as to stand horizontally). Male spike linear, fem. roundish, caps. rostrato-acuminate. LIN. HUDS. LIGHTF. *fla'va.*

Yellow Seg. Heaths, &c. P. 5. 6. *Leers* 15. 6.

Var. 2. *fulva.* With two fem. spikes. L. TR. iii. P. 77.

Obs. : This variety was made a distinct species in Dr. Goodenough's former paper, with the annexed character: "Lowest sheath inclosing about half the peduncle, upper ones nearly the whole, fem. spikes 2, oblong, acute, caps. rostrato-acuminate. *L. Tr.* ii. 20. 6.

25. C. Sheaths very short, as long as the peduncle, leaflet somewhat reflected, spikes crowded; female sp. roundish, caps. ovate, acute. (Whole plant slenderer and taller than C. *flava.*) C. *flava* β. Huds. *exten'sa.*

—— Marshy ground. —— *Lin. Tr.* ii. 21. 7.

26. C. Lowest sheath including nearly half the peduncle, upper nearly the whole, spikes oblong, very remote, caps. acute. HUDS. LIGHT. *dis'tans.*

Loose Seg. Marshes. P. 5. 6. *F. Dan.* 1049.

27. C. Lowest sheath including about half the pedunc., the upper nearly the whole, spikes linear, remote, caps. (alternate) inflated, rather distant and obtuse. LIGHTF. *panic'ea.*

Pinky Seg. Moist pastures. P. 5. 6. *Leers* 15. 5.

28. C. Sheaths half as long as the peduncle, female spikes oblong (4—8-flowered) limber, when in fruit pendulous, pedunc. capillary, caps. acuminate. LIGHTF. *capilla'ris.*

Capillary Seg. Highl. mount. P. 7. 8. *F. Dan.* 168.

29. C. Sheaths including about ⅓ of the peduncle, fem. spikes remote, few-flowered, caps. inflated, ovate, rostrato-acuminate (generally 2-rowed, imbricated). C. *ventricosa.* CURT. *depaupera'ta.*

Charlton Seg. Dry woods. P. 5. 6. *Curt.*

30. C. Sheaths one fourth of the length of the peduncle, spikes filiform, limber, pendulous, caps. ovate, awn-beaked. HUDS. LIGHTF. C. *vesicaria* β. Lin. *sylvat'ica.*

Wood Seg. Woods. P. 5. 6. *Leers* 15. 2.

recurva. 31. C. Sheath one fourth of the length of the peduncle, fem. spikes nearly cylindrical, (in an advanced period of fructific.) pendulous, caps. (crowded) roundish-ovate, root creeping. Huds.

Heath Seg. Moist heaths, &c. P. 5. 6. *Leers* 15. 3.

pallescens. 32. C. Sheaths very short, fem. spikes nearly cylindrical, when in fruit pendulous, caps. somewhat 3-cornered, oblong, obtuse. Lin. Huds. Light.

Pale Seg. Moist pastures. P. 5. 6. *F. Dan.* 1050.

limosa. 33. C. Sheaths scarcely any, fem. spikes ovate, pendulous, caps. ovate, compressed, root creeping. Lin. Huds.

Brown Seg. Bogs. P. 6. *F. Dan.* 646.

pseudocyperus. 34. C. Sheaths scarcely any, fem. spikes cylindrical, peduncled, pendulous, capsules nerved, oblong, awn-beaked, somewhat diverging. Lin. Huds. Lightf.

Bastard Seg. Banks of pools, &c. P. 6. *E. Bot.* 242.

atrata. 35. C. Sheaths scarcely any, all the spikes androgynous, peduncled, when in fruit pendulous, caps. ovate, rather acute. Lin. Huds. Lightf.

Black Seg. Highland mount. P. 6. 8. *F. Dan.* 158.

pilulifera. 36. C. Sheaths none, male spike nearly linear, female sp. crowded, roundish, sessile, culm weak. Lin. Huds. Lightf.

Pill-bearing Seg. Heaths. P. 4. 6. *F. Dan.* 1048.

pulla. 37. C. Stigmas 2, sheaths 0, spikes ovate, the lower one peduncled, caps. ovate, mucronate, point forked.

—— Mount. in Scotland. *Lin. Tr.* iii. *tab.* 14.

Obs. Male spikes sometimes two, fem. spike sometimes only one.

rigida. 38. C. Stigmas 2, sheaths 0, spikes oblong, nearly sessile (the lowest often peduncled), leaves somewhat recurved, rigid. C. *saxatilis.* Huds.

—— High mountains. P. 4. 5. *Lin. Tr.* 22. 10.

cæspitosa. 39. C. Stigmas 2, sheaths 0, spikes nearly sessile, somewhat cylindrical, obtuse, leaves erect, softish. Lin.

—— Moist places. P. 5. *Lin. Tr.* ii. 21. 8.

stricta. 40. C. Stigmas 2, sheaths 0, spikes nearly sessile, cylindrical, acute, male sp. mostly 2, leaves erect, stiff and straight. (Sheaths of the root-leaves split so as to form an open net-work, they and the floral-leaves shorter than the culm when flowering.) C. *cæspitosa.* Huds. β. Lightf.

—— Marshes. P. 4. *Lin. Tr.* ii. 21. 9.

5. *Spikes male and female, male spikes more than* 1.

(C. *filiformis, recurva, pulla, stricta*; and some others have, though rarely, 2 male spikes.)

41. C. Spikes oblong, acute, scales of the male sp. lanceolate, of the fem. aristato-acuminate, caps. ovato-lanceolate, cloven into two teeth at the end. (Male sp. black, triangular.) CURT. C. *acuta* α. Huds. Lightf. *ripa'ria.*

Great Seg. Moist places. P. 4. 5. *Curt.* 281.

42. C. Spikes oblong, rather obtuse, scales of the male sp. obtuse, of the fem. lanceolate, caps. ovato-lanceolate, somewhat toothed at the end (or entire). C. *acuta.* Curt. *paludo'sa.*

Acute Seg. Banks of canals. P. 4—6. *Curt.* 280.

43. C. Stigmas 2, spikes filiform, fem. when in flower nodding, when in fruit erect, caps. rather acute, undivided at the end. C. *gracilis.* Curt. *acu'ta.*

Slender-spiked Seg. Ditches, &c. —4—6. *Curt.*

44. C. Male spikes linear, fem. oblong, spreading, caps. inflated, oblong, rostrato-acuminate, spreading. LIN. C. *inflata.* Huds. Lightf. *vesica'ria.*

Bladder Seg. Marshes. P. 5. 6. *F. Dan.* 647.

45. C. Spikes filiform, male sp. slenderer, female cylindrical, erect, caps. inflated, globular, awn-beaked, diverging. C. *vesicaria.* Huds. Lightf. *ampulla'cea.*

Beaked Seg. Bogs, &c. P. 5—7. *Leers* 16. 2. ii.

46. C. Hairy, all the spikes oblong, female sp. remote, sheathed, sheaths on one side villous, caps. rough-haired. LIN. HUDS. LIGHTF. *hir'ta.*

Hairy Seg. Meadows, &c. P. 5. 6. *Leers* 16. 3.

Obs. All the species with androgynous spikes have their stigma bifid, except C. *pauciflora*; and those with distinct male and female spikes have it trifid, except C. *pulla*, *cæspitosa*, *rigida*, and *stricta*.

Obs. 2. The investigation of the different species of Carex is rendered difficult by an occasional variation in the distinctive marks, e. g. the length of the foliaceous bractes is not absolutely constant; male flowers are sometimes found in the female spikes, and vice versa; the peduncle of the female spikes, which in some species is generally sessile, is at other times found of considerable length, and the division of the caps. at the summit is sometimes present, sometimes wanting.

Obs. 3. All the Carices are believed by Dr. Goodenough to dispose of their seeds by the opening of the point of their capsule, but in some this opening is not observable

till they be in an advanced state of fructification, he has therefore described them as closed.——See Lin. Tran. vol. ii. and iii.

TETRANDRIA.

1052. BET'ULA. M. *Cal.* 1-leaved, 3-cleft, 3-flowered. *Cor.* 4-parted.
F. *Cal.* 1-leaved, about 3-cleft, 2-flowered. *Seeds* winged with a membrane on both sides,

al'ba. 1. B. Leaves ovate, acuminate, serrated. (Leaves triangulari-lanceolate, acute, smooth, doubly serrated. WITH.)
Birch-tree. Woods, &c. T. 4. 5. *Hunt.* i. 6.
Var. 1. Branches erect, stiff. Var. 2. Branches pliable, pendent.

al'nus. 2. B. Peduncles branched. (Leaves roundish, glutinous; veins underneath, woolly at the base. WITH.)
Alder or *Owler.* Watery places. T. 2. 3. *Ger.* 1477. 1.

na'na. 3. B. Leaves circular, crenate.
Dwarf Birch-tree. Moist heaths. S. 5. *Lightf.* 25.

1052. BUX'US. M. *Cal.* 3-leaved. *Pet.* 2. *Germen* a rudiment only.
F. *Cal.* 4-leaved. *Pet.* 3. *Styles* 3. *Caps.* 3-beaked, 3-celled. *Seeds* 2.

sempervi'rens. 1. BUXUS.
Com. Box. Hedges, &c. P. 4. *Sheldr.* 85. *Ger.* 1410.

1054. URTI'CA. M. *Cal.* 4-leaved. *Cor.* 0. *Nect.* central, glass-form.
F. *Cal.* 2-valved. *Cor.* 0. *Seed* 1, shining.

pilulif'era. 1. U. Leaves opposite, ovate, serrated, fruit-bearing aments globular.
Roman Nettle. Rubbish. A. 8. *E. Bot.* 148.

u'rens. 2. U. Leaves opposite, oval. (Stem branched. WITH.)
Less Net. Rubbish. A. 7—9. *F. Dan.* 739. *Ger.* 707.

dioi'ca. 3. U. Leaves opposite, cordate, racemes in pairs. (Flow. dioicous.)
Com. Nettle. Hedges, &c. P. 7. *Woodv.* 146.

1328. LITTOREL'LA. M. *Cal.* 4-leaved. *Cor.* 4-cleft. *Stam.* long.
F. *Cal.* 0. *Cor.* about 4-cleft (unequally 3-cleft). *Style* long. *Seed* a nucleus.

lacus'tris. 1. LITTORELLA.
Plantain Shoreweed. Marshy pl. P. 6—8. *E. Bot.* 468.

PENTANDRIA.

1056. XAN'THIUM. M. *Cal.* common, imbricated. *Cor.* 1-petalled, funnel-shaped, 5-cleft. *Recept.* chaffy.
F. *Cal.* involucrate, 2-leaved, 2-flowered. *Cor.* 0. *Drupe* (*Capsule* WITH.) dry, muricate, bifid. *Nucleus* 2-celled.

1. X. Stem unarmed, leaves cordate, 3-nerved. *Less Burdock.* Dunghills. A. 6—9. *F. Dan.* 970. — *struma'rium.*

1060. AMARAN'THUS. M. *Cal.* 3, or 5-leaved. *Cor.* 0. *Stam.* 3, or 5.
F. *Cal.* 3, or 5-leaved. *Cor.* 0. *Styles* 3. *Caps.* 1-celled, opening horizontally. *Seed* 1.

1. A. Glomerules lateral, flowers 3-cleft, leaves ovate, retuse, stem diffuse. (Flow. triandrous, somewhat spiked. WILLDEN. Hist.) *Small Red Blite.* Rubbish. A. 8. *Pet.* 7. — *Bli'tum.*

POLYANDRIA.

(Stamens more than seven.)

1065. CERATOPHYL'LUM. M. *Cal.* many-parted. *Cor.* 0. *Stam.* 16—20.
F. *Cal.* many-parted. *Cor.* 0. *Pistil* 1. *Style* 0. *Seed* 1, naked.

1. C. Leaves dichotomo-bigeminate, fruit 3-thorned. (Caps. ovate, with a thorn-like beak, and two straight thorns at the base. ROTH.—— Leaves forked, toothed, lower ones linear, upper ones much crowded, tubular, and inflated, beaks of the caps. of equal length. WITH. See RAY syn. 135. 1.) *Com. Hornwort.* Streams. P. 8. 9. *Vaill.* 1719. 2. 1. — *demer'sum.*

2. C. Leaves dichotomo-trigeminate, fruit thornless. (Leaf smooth, armed with 8 horns, slenderer, and more frequently divided, seed smooth. DILL. in R. 135. 2.—Leaves forked, toothed, lower ones tubular and somewhat inflated, upper ones capillary, near together, caps. with a short blunt point. WITH.) *C. demersum* β. Huds. — Ditches. — *Vaill. Hist. de l'Acad.* 1719. 2. 2. — *submer'sum.*

Obs. It is doubtful whether this be specifically distinct. *Flor. Dan.* 510. is referred to for both species, for *submersum* by Murray, for *demersum* by With.

1066. MYRIOPHYL'LUM. M. *Cal.* 4-leaved. *Cor.* 0. *Stam.* 8.
F. *Cal.* 4-leaved. *Cor.* 0. *Pist.* 4. *Style* 0. *Seeds* 4, naked.

spica'tum. 1. M. Male flow. in interrupted spikes. (Spike leafless—Petals 4, soon falling off. E. BOT.)
Spiked Water-Millfoil. Stag. wat. P. 5. 8. *E. Bot.* 83.

verticilla'tum. 2. M. (Stem simple.) All the flow. verticillate, herm. (Pet. 4, soon falling off.)
Whirled Millfoil. Canals, &c. P. 6. 7. *E. Bot.* 218.

Obs. Male and fem., as well as herm. flow. occur on the same plant. WOODW.

1067. SAGITTA'RIA. M. *Cal.* 3-leaved. *Cor.* 3-petalled. *Filam.* about 24.
F. *Cal.* 3-leaved. *Cor.* 3-petalled. *Pist.* many. *Seeds* many, naked.

sagittifo'lia. 1. S. Leaves sagittate, acute.
Com. Arrow-head. Banks of rivers. P. 7. *E. Bot.* 84.

1069. POTE'RIUM. M. *Cal.* 4-leaved. *Cor.* 4-parted. *Stam.* 30—40.
F. *Cal.* 4-leaved. *Cor.* 4-parted. *Pist.* 2. *Berry* formed of the indurated tube of the corol.

sanguisor'ba. 1. P. Unarmed, stems rather angular.
Upland Burnet. Chalky pastures. P. 4. 5. *Curt.*

1070. QUER'CUS. M. *Cal.* commonly 5-cleft. *Cor.* 0. *Stam.* 5—10.
F. *Cal.* 1-leaved, very entire, rough. *Cor.* 0. *Styles* 2—5. *Seed* 1, ovate.

Ro'bur. 1. Q. Leaves petioled, oblong, broadest towards the end, indentations rather acute, angles obtuse, fruit nearly sessile. WITH. Q. *Robur* β. Huds. Var. 2. *sessilis.* MART.
Sessile-fruited Oak. Woods. T. 4. *Martin* 11.

pedunculata'ta. 2. Q. Leaves oblong, on short petioles, obtuse, sinuato-pinnatifid; fruit mostly solitary, on long peduncles. EHRH. Q. *femina.* With. Q. *Robur* α. Huds. Var. 1. *pedunculata.* Mart.
True British Oak. Woods. T. 4. *Martin.* 10.

Obs. Both the above species are included by Lin. under Q. *Robur*, with the annexed char. "Leaves deciduous oblong,

broader above, indentations rather acute, angles obtuse."

1072. FA'GUS. M. *Cal.* 5-cleft, campanulate. *Cor.* 0. *Stam.* 12.
F. *Cal.* 4-toothed. *Cor.* 0. *Styles* 3. *Caps.* (the calyx before) muricated, 4-valved, 2-seeded.

1. F. Leaves lanceolate, acuminate, serrated, naked underneath. *casta'nea.*
Chesnut-tree. Woods, &c. T. 5. *Hunter* i. p. 153.

2. F. Leaves ovate, indistinctly serrated. *sylvat'ica.*
Beech-tree. Woods, &c. T. 4. 5. *Hunter* i. p. 131.

1073. CARPI'NUS. M. *Cal.* 1-leaved, a ciliate scale. *Cor.* 0. *Stam.* 20.
F. *Cal.* 1-leaved, a ciliate scale. *Cor.* 0. *Germ.* 2. *Styles* 2 upon each germ. *Nut* ovate. (*Cor.* calyx-like, 1-leaved, 6-cleft, 2 segm. larger.)

1. C. Scales of the strobiles flat. *Bet'ulus.*
Horn-beam Tree. Hedges, &c. T. 5. *Hunt.* i. p. 138.

1074. COR'YLUS. M. *Cal.* 1-leaved, 3-cleft, scale-form, one-flowered. *Cor.* 0. *Stam.* 8.
F. *Cal.* 2-leaved, lacerated. *Cor.* 0. *Styles* 2. *Nut* ovate.

1. C. Stipules ovate, obtuse. (Stip. lanceolate; leaves cordate, roundish, twigs hairy. AITON.) *avella'na.*
Hazel-nut Tree. Hedges. T. 4. 5. *Hunt.* i. p. 213.

MONADELPHIA.

1077. PI'NUS. M. *Cal.* 4-leaved. *Cor.* 0. *Stam.* many. *Anth.* naked.
F. *Cal.* forming Strobiles, each scale 2-flowered. *Cor.* 0. *Pist.* 1. *Nut* with a membranous wing.

1. P. Leaves in pairs, primordial ones solitary, smooth. (Cones ovato-conical, mostly in pairs, as long as the leaves, scales oblong, obtuse. WITH.) *sylves'tris.*
Scotch Fir. Scotch mount. T. 5. *Hunt.* i. p. 274.

SYNGENESIA.

1093. BRYO'NIA. M. *Cal.* 5-toothed. *Cor.* 5-parted. *Fil.* 3. (*Anth.* 5, sometimes 6, united in pairs.)

F. *Cal.* 5-toothed. *Cor.* 5-parted. *Style* 3-cleft. *Berry* rather globular, many-seeded (mostly 1-seeded. WITH.).

dioi'ca. 1. B. Leaves palmate, on both sides rough, callous, flowers dioicous. B. *alba.* Huds.
Red-berried Bryony. Woods. P. 5. *Ger.* 869. *E. B.* 439.

CLASS XXII.

DIOECIA.

DIANDRIA.

1098. Sa'lix. M. *Ament* (oblong, imbricated) Scale (1-flowered). *Cor.* 0. *Stam.* 2, rarely 5.
F. *Ament* Scale. *Cor.* 0. *Stigm.* 2. *Caps.* 2-valved. *Seeds* downy.

TRIANDRIA.

1100. Em'petrum. M. *Cal.* 3-parted. *Cor.* 3-petalled.
F. *Cal.* 3-parted. *Cor.* 3-petalled. *Styles* 9. *Berry* 9-seeded.

(III. *Valeriana dioica.* XXI. *Carex dioica. Bryonia.*)

TETRANDRIA.

1105. Vis'cum. M. *Cal.* 4-parted. *Cor.* 0. (*Filam.* 0.)
F. *Cal.* 4-leaved. *Cor.* 0. *Stig.* obtuse. *Berry* 1-seeded, inferior.

1106. Hippoph'ae. M. *Cal.* 2-parted. *Cor.* 0.
F. *Cal.* bifid. *Cor.* 0. *Pist.* 1. *Berry* 1-seeded, aril truncated.

1107. Myri'ca. M. *Ament* (ovato-oblong) Scale (1-flowered). *Cor.* 0.
F. *Ament* Scale. *Cor.* 0. *Styles* 2. *Berry* 1-seeded.

(IV. *Ilex.* V. *Rhamnus catharticus. Thesium alpinum.* XX. *Ophrys corallorrhiza.* XXI. *Urtica dioica.*

PENTANDRIA.

1116. Hu'mulus. M. *Cal.* 5-leaved. *Cor.* 0.
F. *Cal.* 1-leaved (with an oblique opening). *Cor.* 0. *Styles* 2. *Seed* 1, winged with the calyx.

(*Salix pentandra.* V. *Pimpinella dioica.*)

HEXANDRIA.

1119. Ta'mus. M. *Cal.* 6-leaved (6-parted). *Cor.* 0.
F. *Cal.* 6-leaved. *Cor.* 0. *Style* 3-cleft. *Berry* 3-celled, inferior.

(VI. *Asparagus. Rumex acetosa, et Acetosella.*)

OCTANDRIA

1123. Pop'ulus. M. *Ament* (oblong, imbricated; scales 1-flowered) lacerated. *Cor.* 0. *Nect.* ovate. *Stam.* 8—16.
F. *Ament* lacerated. *Cor.* 0. *Stig.* 4-cleft. *Caps.* 2-valved. *Seeds* pappous.

1124. Rhodi'ola. M. *Cal.* 4-parted. *Cor.* 4-petalled.
F. *Cal.* 4-parted. *Cor.* 0. *Pist.* 4. *Caps.* 4, many-seeded.

ENNEANDRIA.

1125. Mercuria'lis. M. *Cal.* scarcely any. *Cor.* 5-cleft.
F. *Cal.* 5-toothed. *Cor.* 5-petalled. *Stig.* 8. *Berry* many-seeded.

1126. Hydroch'aris. M. *Cal.* 3-leaved (3-cleft). *Cor.* 3-petalled.
F. *Cal.* 3-leaved. *Cor.* 3-petalled. *Styles* 6. *Caps.* inferior, 6-celled.

DECANDRIA.

(X. *Cucubalus otites. Lychnis diurna, et vespertina.*

ICOSANDRIA.

(XII. *Rubus chamæmorus.*)

POLYANDRIA.

(XIII. *Stratiotes aloides.*)

MONADELPHIA.

1134. Junip'erus. M. *Ament* (conical.) *Cor.* o. *Stam.* 3.
F. *Cal.* 3-parted. *Cor.* 3-petalled. *Styles* 3. *Berry* inferior, 3-seeded, calycine (the calyx at the base. With.).

1135. Tax'us. M. *Cal.* 4-leaved. *Cor.* o. *Anth.* 8-cleft.
F. *Cal.* 4-leaved. *Cor.* o. *Stig.* 1. *Berry* 1-seeded, upper half wanting.

SYNGENESIA.

1139. Rus'cus. M. *Cal.* 6-leaved. *Cor.* o. *Stam.* 5.
F. *Cal.* 6-leaved. *Cor.* o. *Pist.* 1. *Berry* 3-celled, 2-seeded.

(XIX. *Gnaphalium dioicum.* XXI. *Bryonia dioica.*)

DIANDRIA.

1098. Sa'lix. M. *Cal.* scale of an Ament (1-flowered). *Cor.* o. A nectariferous *gland* at the base of the stam.
F. *Cal.* scale of an Ament (1-flowered). *Cor.* o. *Style* bifid. *Caps.* 1-celled, 2-valved. *Seeds* pappous.

1. *Leaves smooth, serrated.*

1. S. Leaves oblongo-lanceolate, flowers with 3 stamens (sometimes 2. Huds.). *trian'dra.*
Smooth Willow. Hedges. S. 4. 5. *Hoff.* S. i. 9 & 10.

monan'dra. 2. S. Leaves lineari-lanceolate, upper leaves oblique, aments downy, flowers monandrous. HOFFM. WITH. S. *purpurea* and *Helix*. LIN.
Rose or *Purple Willow*. Hedges, &c. *Hoff.* i. 1 & 5.

pentan'dra. 3. S. Leaves ovate, acute, flowers pentandrous
Sweet Willow. Hedges, &c. S. 4. *Fl. Lapp.* 8. 2.

vitelli'na. 4. S. Leaves ovate, (ovato-lanceolate) acute, serratures cartilaginous, petioles callous, dotted.
Yellow Willow. Osier holts. T. 5. *Hoff.* i. 11. & 12.

amygdali'na. 5. S. Leaves lanceolate, petioled, stipules trapéziform.
Almond-leaved W. Banks of riv. S. 4. 5. *Park.* 1430. 5.

frag'ilis. 6. S. Leaves ovato-lanceolate, petioles toothed, glandular. (Young leaves beset on both sides with whitish appressed hairs. WILLD.)
Crack Willow. Hedges, &c. T. 4. 5. *Woodv.* 198.

myrsini'tes. 7. S. Leaves ovate, venous (semi-transparent).
Whortle-leav. W. Highl. mount. S. 6. *Hoff.* i. 17. 18. 19.
Obs. The last year's leaves dry, membranous, venoso-reticulated, remaining till the following summer. VAHL.

herba'cea. 8. S. Leaves orbicular.
Herbaceous Will. On Snowdon. S. 7. *F. Dan.* 117.

retu'sa. 9. S. Leaves slightly serrated, obovate, very obtuse. (Leaves with parallel veins.)
—— Ben Lawers. Scotl. — *Gmel. fl.* i. 35. 2.

2. *Leaves smooth, very entire.*

reticula'ta. 10. S. Leaves ovate, obtuse. (With a net-work of veins underneath, at first red, afterwards green.)
Net-work W. Mount. S. 5. *Hoff.* ii. 25—27. *F. D.* 212.

ru'bra. 11. S. Leaves lineari-lanceolate, acute. HUDS.—A var. of S. *viminalis*, or *monandra ?*
Red Willow. Willow-beds. T. 4. 5. ——

3. *Leaves very entire, villous.*

auri'ta. 12. S. Leaves villous on both sides, obovate, appendaged. S. *caprea* β. Huds.
Round-eared W. Heaths. S. 5. 6. *Hoff.* i. 4. fol. i. 22.

lana'ta. 13. S. Leaves woolly on both sides, roundish, acute.
—— Vallies in Highl. Scotl. — 5. *Fl. Ros.* i. 81. 1.

lappo'num. 14. S. Leaves lanceolate, hirsute.
Lapland Willow. Highl. mount. S. 6. *F. Dan.* 1058.

re'pens. 15. S. Leaves lanceolate, nearly naked on both sides, stem creeping. (Stigma 4-cleft, caps. smooth. E. BOT.) S. *repens* β. Huds. S. *depressa*. Hoffm.
Creeping W. Wet sandy heaths. S. 4. 5. *E. Bot.* 183.

Var. 2. S. *repens* α. Huds. Leaf downy on both sides. RAY syn. 447. 4. *Park.* 1435. 3.

16. S. Leaves ovate, pubescent underneath. S. *repens* δ. Huds. *fus'ca.*

Sand Will. Sea shores. S. 5—7. *Hoff.* ii. 28. 29.

17. S. Leaves lanceolato-linear, stiff and straight, sessile (nearly), tomentous underneath. S. *repens* ε. Huds. *rosmari'nifo'lia.*

Rosemary-leaved W. Wensledale. *Park.* 1435.

4. *Leaves somewhat serrated, villous.*

18. S. Leaves ovate, wrinkled, tomentous underneath, undulated, toothed towards the end. See S. *cinerea.* *ca'prea ?*

—— *F. Dan.* 245. *Hoffm.* i. 3. 5. 4. fol. i. 21. 1.

19. S. Leaves ovato-oblong, tomentous underneath; upper ones entire, lower ones crenate. HOFF. MILLER. S. *caprea* β. Lin. Huds. *acumina'ta.*

—— Thickets, &c. *Hoff.* i. 6. *Ger.* 1390. 4.

Var. 2. Leaves rounder and smaller. See DILL. in R. 450. 17.

20. S. Leaves oblongo-ovate, somewhat woolly underneath, stipules semi-cordate. S. *caprea.* Huds. Lightf. *cine'rea.*

Sallow Willow. Woods, &c. S. 4.

Obs. Withering informs us on the authority of Afzelius, that S. *caprea* Huds. Lightf. &c. is not S. *caprea* Lin. and refers it to S *cinerea.*—And Willdenow considers S. *aurita* of Hoffm., and almost all authors, as belonging to this species.

21. S. Leaves very nearly entire, lanceolato-linear, very long, acute, silky underneath, branches rod-like. (Leaves silvery underneath, nect. in the male flower long and slender, style in the fem. very long. HOFFM.) *vimina'lis.*

Osier. Boggy woods. S. 4. 5. *Hoff.* i. 2. i. 21. 2.

22. S. Leaves lanceolate, acuminate. serrated, on both sides pubescent, the lowest serratures glandular. *al'ba.*

White W. Hedge-rows. T. 4. *Hoff.* i. 7. & 8. i. 24. 3.

TRIANDRIA.

1100. EM'PETRUM. M. *Cal.* 3-parted. *Cor.* 3-petalled. *Stam.* long.

F. *Cal.* 3-parted. *Cor.* 3-petalled. *Styles* 9. *Berry* 9-seeded.

ni'grum. 1. E. Procumbent. (Flow. often monoicous, sometimes hermaph. VAHL.)
Crake-berries. Moors. S. 4. 5. *F. Dan.* 975.

TETRANDRIA.

1105. VIS'CUM. M. *Cal.* 4-parted. *Cor.* none. *Filam.* 0. *Anthers* fixed to the calyx.
F. *Cal.* 4-leaved, superior. *Style* 0. *Cor.* 0. *Berry* 1-seeded (pulpy, 1-celled). *Seed* cordate.

al'bum. 1. V. Leaves lanceolate, obtuse, stem dichotomous, spikes axillary.
White Missel-toe. On trees. S. 5. *Woodv.* 270.

1106. HIPPOPH'AE. M. *Cal.* 2-parted. *Cor.* 0.
F. *Cal.* bifid (tubular). *Cor.* 0. *Style* 1. *Berry* 1-seeded (superior; *Seed* solitary, 2-coated. E. BOT.).

Rhamnoi'des. 1. H. Leaves lanceolate.
Sea Buck-thorn. Sandy sea sh. S. 4. 5. *E. Bot.* 425.

1107. MYRI'CA. M. *Ament* scale crescent-shaped. *Cor.* 0.
F. *Ament* scale crescent-shaped. *Cor.* 0. *Styles* 2. *Berry* 1-seeded.

Ga'le. 1. M. Leaves lanceolate, somewhat serrated; stem somewhat shrubby. (Male and fem. flowers on the same plant; sometimes on the same ament.
Sweet Gale. Moist heaths. S. 5. *F. Dan.* 327.

PENTANDRIA

1116. HU'MULUS. M. *Cal.* 5-leaved. *Cor.* 0.
F. *Cal.* 1-leaved, expanding obliquely, entire. *Cor.* 0. *Styles* 2. *Seed* 1, within a leafy calyx. (Fem. *Ament* of numerous obliquely spreading undivided scales. E. BOT.)

Lu'pulus. 1. HUMULUS.
Com. Hop. Hedges. P. 6. 7. *E. Bot.* 427.

HEXANDRIA.

1119. TA'MUS. M. *Cal.* 6-parted. *Cor.* 0.
F. *Cal.* 6-parted. *Cor.* 0. *Style* 3-cleft. *Berry* 3-celled, inferior. *Seeds* 2 (in each cell).

1. T. Leaves cordate, undivided. *commu'nis.*
Black Bryony. Woods. P. 6. *E. Bot.* 91.

OCTANDRIA.

1123. POP'ULUS. M. *Cal.* scale of an Ament, lacerated. *Cor.* turbinate, oblique, entire.
F. *Cal.* and *Cor.* as in the male. *Stigm.* 4-cleft. *Caps.* 2-celled. *Seeds* many, pappous.

1. P. Leaves roundish, dentato-angular, tomentous underneath. *al'ba.*
White Poplar. Hedges. T. 3. *Hunt.* i. p. 201.
Var. 2. Leaves smaller. RAY syn. 446. 2. *Ger.* 1487. 5.

2. P. Leaves roundish, dentato-angular, smooth on both sides. *trem'ula.*
Aspen. Moist woods. T. 3. 4. *Ger.* 1487. 3.

3. P. Leaves deltoid, acuminate, serrated (smooth on both sides, stamens 16). *ni'gra.*
Black Poplar. Shady places. T. 3. *Ger.* 1486. 2.

1124. RHODI'OLA. M. *Cal.* 4-parted. *Cor.* 4-petalled.
F. *Cal.* 4-parted. *Cor.* 0 (4 rude petals). *Nect.* 4. *Pist.* 4. *Caps.* 4, many-seeded.

1. RHODIOLA. *ro'sea.*
Yellow Rose-wort. Mount. P. 6. 7. *F. Dan.* 183.

Obs. Dahl has often found this plant hermaph., and as the male flow. are frequently decandrous, and the fem. pentagynous, thinks it should be referred to the genus Sedum.

ENNEANDRIA.

1125. MERCURIA'LIS. M. *Cal.* 3-parted. *Cor.* 0. *Stam.* 9—12. *Anth.* globular, didymous.
F. *Cal.* 3-parted. *Cor.* 0. *Styles* 2. *Caps.* 2-celled, 1-seeded.

peren'nis. 1. M. Stem undivided, leaves rough.
Dog's Mercury. Hedges, &c. P. 4. 5. *Curtis.*

an'nua. 2. M. Stem brachiate, leaves smooth, flowers spiked. (Stem much branched, internodes incrassated, leaves lucid.)
French Mercury. Rubbish. A. 8. 9. *Curt.* 336. 1. 2.

1126. HYDROCH'ARIS. M. *Spathe* 2-leaved. *Cal.* 3-cleft. *Cor.* 3-petalled. *Filam.* 3 inner ones style-bearing.
F. *Cal.* 3 cleft. *Cor.* 3-petalled. *Styles* 6. *Caps.* 6-celled, many-seeded, inferior.

Mor'sus ra'næ. 1. HYDROCHARIS.
Com. Frog-bit. Slow streams. P. 6. *Curt.* 167.

MONADELPHIA.

1134. JUNIP'ERUS. M. *Cal.* scale of the Ament. *Cor.* 0. *Stam.* 3.
F. *Cal.* 3-parted. *Pet.* 3. *Styles* 3. *Berry* 3-seeded, with 3 tubercles of the unequal calyx. (*Drupe* juicy, closed, 1-celled, many-seeded. WITH.)

commu'nis. 1. J. Leaves 3-together, spreading, mucronate, longer than the berry.
Juniper Tree. Heaths, &c. S. 5. *Woodv.* 95.
Var. 2. β. Huds. Smaller leaf broader, fruit longer. RAY syn. 444. 2.
Mountain Dwarf J. Snowdon. *Ger.* 1372. 3.

1135. TAX'US. M. *Cal.* a 4 or 7-leaved bud. *Cor.* 0. *Stam.* many. *Anth.* peltate, 8-cleft.
F. *Cal.* a 4 or 7-leaved bud. *Cor.* 0. *Style* 0. *Seed* 1, with a berry-like very entire calycle.
Obs. Lin. makes the Calyx 3-leaved in Syst. Veg.

bacca'ta. 1. T. Leaves approximate.
Com. Yew-tree. Mount. woods. T. 3. 4. *Hunt.* i. 257.

SYNGENESIA.

1139. Rus'cus. M. *Cal.* 6-leaved. *Cor.* 0. *Nect.* central, ovate, perforated at the top. (*Anth.* 3.)
F. *Cal. Cor.* and *Nect.* as in the male. *Style* 1. *Berry* 3-celled. *Seeds* (generally) 2.

1. R. Leaves flower-bearing above, naked. *aculea'tus.*
Butcher's Broom. Thickets. S. 3. 4. *Woodv.* 237.

CLASS XXIII.

POLYGAMIA.

MONOECIA.

146. Hol'cus. Hermaph. (*Cal.*) *Glume* 1 (to 3) -flowered. (*Cor.*) *Glume* 2-valved. *Stam.* 3. *Styles* 2. *Seed* 1.
Male. (*Cal.*) *Glume* 1-flowered. (*Cor.*) *Glume* 2-valved. *Stam.* 3.

1150. Æ'gilops. Hermaph. (*Cal.*) *Glume* 3-flowered. (*Cor.*) *Glume* 3-awned. *Stam.* 3. *Styles* 2. *Seed* 1.
Male. (*Cal.*) *Glume* 3-flowered. (*Cor.*) *Glume* 3-awned. *Stam.* 3. (Flow. intermediate.

1151. Valan'tia. Herm. *Cal.* 0. *Cor.* 4-parted. *Stam.* 4. *Style* bifid. *Seed* 1.
Male. *Cal.* 0. *Cor.* 3 or 4-parted. *Stam.* 3 or 4.

1152. Parieta'ria. Herm. *Cal.* 4-cleft. *Cor.* 0. *Stam.* 4. *Style* 1. *Seed* 1.
Fem. *Cal.* 4-cleft. *Cor.* 0. *Style* 1. *Seed* 1.

1153. At'riplex. Herm. *Cal.* 5-leaved. *Cor.* 0. *Stam.* 5. *Style* bifid. *Seed* 1.
Fem. *Cal.* 2-leaved (larger). *Cor.* 0. *Style* bifid. *Seed* 1.

(I. *Callitriche verna.* III. *Avena elatior. Hordeum murinum, pratense, et maritimum Rottboella.* XII. *Euphorbia Portlandica, et Characias.* XXI. *Lemna. Myriophyllum verticillatum.*)

DIOECIA

1160. Frax'inus. Herm. *Cal.* 0, or 4-parted. *Cor.* 0, or 4-petalled. *Stam.* 2. *Pist.* 1. *Seed* 1.
Fem. *Cal.* 0, or 4-parted. *Cor.* 0, or 4-petalled. *Pist.* 1. *Seed* 1.

(I. *Callitriche verna.* IV. *Ilex.* V. *Pimpinella dioica.* XIII. *Stratiotes.*

MONOECIA.

1146. Ho*l'*cus. Herm. *Cal.* Glume 1, or 2 (to 3) -flowered. *Cor.* Glume awned (Awn twice as long as the corol.) *Stam.* 3. *Styles* 2. *Seed* 1.
Male. *Cal.* Glume 2-valved. *Cor.* 0. (Awn as long as the corol. With.) *Stam.* 3.

1. H. Glumes 2-flowered, villous, hermaph. floret awnless; male with a recurved awn (enclosed in the calyx. Sheath loose, striated, villous.) *Meadow Soft Grass.* Meadows. P. 6. 7. *Curt.* 228. *lana'tus.*

2. H. Glumes 2-flowered, rather naked, hermaph. floret awnless; male with a geniculate awn. (Calyxes more acute, roots creeping, joints woolly, awn protruding out of the calyx. Curtis.) *mol'lis.*

Obs. Both the florets are hermaph. one on a pedicle, awned, hairy at the base, awn twice as long as the cor., the other sessile, awnless, not hairy at the base.

Creeping Soft Grass. Woods. P. 7. 8. *Curt.* 323.

3. H. Cal. 2-flowered; awn of the male floret geniculate, dorsal. Gmel. See Avena *elatior.* *avena'ceus.*

1150. Æ*'*gilops. Herm. *Cal.* glume mostly 3-flowered, cartilaginous. *Cor.* glume terminated by a triple awn. *Stam.* 3. *Styles* 2. *Seed* 1.
Male. *Cal.* and *Cor.* glume as in the former. *Stam.* 3.

1. Æ. Spike subulate, awnless, smooth, incurved, calyxes 1-flowered. See Rottbollia *incurvata.* Page 29. *incurva'ta.*

1151. Valan*'*tia. Hermaph. *Cal.* 0. *Cor.* 4-parted. *Stam.* 4. *Style* bifid. *Seed* 1.
Male. *Cal.* 0. *Cor.* 3 or 4-parted. *Stam.* 4 or 3. *Pist.* indistinct.

1. V. Male flowers 4-cleft, peduncles 2-leaved. Galium *cruciatum.* With. E. Bot. See page 35. *Crucia'ta.*

Crosswort. Hedges. P. 5—7. *E. Bot.* 143.

1152. PARIETA'RIA. Herm. *Cal.* 4-cleft. *Cor.* 0. *Stam.* 4. *Style* 1. *Seed* 1, superior, elongated.
Fem. *Cal.* 4-cleft. *Cor.* 0. *Stam.* 0. *Style* 1. *Seed* 1, superior, elongated.

officina'lis. 1. P. Leaves lanceolato-ovate, peduncles dichotomous, calyxes 2-leaved. (Fem. flow. 4-cornered, pyramidal.)
Pellitory of the Wall. Walls. P. 5—9. *Curt.* 233.

1153. AT'RIPLEX. Herm. *Cal.* 5-leaved. *Cor.* 0. *Stam.* 5. *Style* 2-parted. *Seed* 1, depressed.
Fem. *Cal.* 2-leaved. *Cor.* 0. *Stam.* 0. *Style* 2-parted. *Seed* one, compressed (erect).

portulacoi'des. 1. A. Stem shrubby, leaves obovate.
Sea Purslane. Muddy shores. S. 7. 8. *E. Bot.* 261.

lacinia'ta. 2. A. Stem herbaceous (spreading), leaves deltoid, toothed, silvery underneath.
Frosted Orache. Sea shores. A. 7. 8. *E. Bot.* 165.

hasta'ta. 3. A. Stem herbaceous (erect, somewhat compressed), calyx-valves of the fem. flowers large, deltoid, sinuated. (Leaves triangular, sinuated. PERS.)
Wild Orache. Rubbish. A. 8. 9. *Curtis.*
Var. 2. β. Huds. Perennial, leaf deltoid or triangular, less hoary. *H. ox.* 2. 607. 19.
—— 3. γ. Huds. Procumbent, leaves scarcely sinuated, appendaged at the base. *J. B.* ii. 974. 2. See Dill. in R. 152. 7.

pat'ula. 4. A. Stem herbaceous, (somewhat 4-cornered) patulous, leaves somewhat deltoideo-lanceolate, calyx of the seeds toothed on the disc.
Spear Orache. Rubbish. A. 8. *Ger.* 326. 7.
Var. 2. β. Huds. Stem herbaceous, leaves hastate, toothed.—Stems firmer and thicker, leaves long, narrow, laciniated. DILL. in R. 152. 4.

littora'lis. 5. A. Stem herbaceous, erect, leaves all linear, very entire (or serrated. WOODW.)
Var. 1. α. Huds. Leaf very long and narrow. See Dill. in R. 153. 12.
Grass Orache. Sea shore, &c. A. 8. *Pet.* 7. 6.
Var. 2. β. Huds. Very small, narrow-leaved. *H. ox.* 5. 32. 20.
—— 3. γ. Huds. Narrow-leaved, leaf more obtuse. DILL. l. c.
—— 4. Leaves toothed. *Pet.* 7. 4. See With.

6. A. Stem herbaceous, (branches) diverging ; leaves lanceolate, obtuse, entire, fem. calyxes peduncled. *pedunculata.*

Stalked Orache. Sea shores. A. 7—9. *E. Bot.* 232.

Var. 2. β. Huds. Leaves small. RAY syn. 153.9.

1155. A'CER. Herm. *Cal.* 5-cleft. *Cor.* 5-petalled. *Stam.* 8. *Pist.* 1. *Caps.* 2 or 3, 1-seeded, terminated by a wing.
Male. *Cal.* 5-cleft. *Cor.* 5-petalled. *Stam.* 8.

1. A. Leaves 5-lobed, unequally serrated, flowers racemous. (Racemes pendulous.) *Pseudoplatanus.*

Sycamore Tree. Hedges. T. 5. 6. *E. Bot.* 303.

Var. 2. Leaves glaucous, distantly serrated, filam. hairy. SMITH.

2. A. Leaves lobed, obtuse, emarginate. (Flow. in upright clusters. E. BOT.) *campestre.*

Com. Maple. Hedges. S. 6. *E. Bot.* 304.

Var. 2. β. Huds. Fruit villous, red ; wings reddish purple. See Dill. in R. 470. 3.

DIOECIA.

1160. FRAX'INUS. Herm. *Cal.* 0, or 4-parted. *Cor.* 0, or 4-petalled. *Stam.* 2. *Pist.* 1. *Seed* 1, lanceolate.
Fem. *Pist.* 1, lanceolate.

1. F. Leaves serrated, flowers apetalous. *excelsior.*

Com. Ash Tree. Woods. T. 4. 5. *Hunt.* i. p. 145.

1152. PARIETA'RIA. Herm. *Cal.* 4-cleft. *Cor.* 0. *Stam.* 4. *Style* 1. *Seed* 1, superior, elongated.

Fem. *Cal.* 4-cleft. *Cor.* 0. *Stam.* 0. *Style* 1. *Seed* 1, superior, elongated.

officina'lis. 1. P. Leaves lanceolato-ovate, peduncles dichotomous, calyxes 2-leaved. (Fem. flow. 4-cornered, pyramidal.)

Pellitory of the Wall. Walls. P. 5—9. *Curt.* 233.

1153. AT'RIPLEX. Herm. *Cal.* 5-leaved. *Cor.* 0. *Stam.* 5. *Style* 2-parted. *Seed* 1, depressed.

Fem. *Cal.* 2-leaved. *Cor.* 0. *Stam.* 0. *Style* 2-parted. *Seed* one, compressed (erect).

portulacoi'des. 1. A. Stem shrubby, leaves obovate.

Sea Purslane. Muddy shores. S. 7. 8. *E. Bot.* 261.

lacinia'ta. 2. A. Stem herbaceous (spreading), leaves deltoid, toothed, silvery underneath.

Frosted Orache. Sea shores. A. 7. 8. *E. Bot.* 165.

hasta'ta. 3. A. Stem herbaceous (erect, somewhat compressed), calyx-valves of the fem. flowers large, deltoid, sinuated. (Leaves triangular, sinuated. PERS.)

Wild Orache. Rubbish. A. 8. 9. *Curtis.*

Var. 2. β. Huds. Perennial, leaf deltoid or triangular, less hoary. *H. ox.* 2. 607. 19.

—— 3. γ. Huds. Procumbent, leaves scarcely sinuated, appendaged at the base. *J. B.* ii. 974. 2. See Dill. in R. 152. 7.

pat'ula. 4. A. Stem herbaceous, (somewhat 4-cornered) patulous, leaves somewhat deltoideo-lanceolate, calyx of the seeds toothed on the disc.

Spear Orache. Rubbish. A. 8. *Ger.* 326. 7.

Var. 2. β. Huds. Stem herbaceous, leaves hastate, toothed.—Stems firmer and thicker, leaves long, narrow, laciniated. DILL. in R. 152. 4.

littora'lis. 5. A. Stem herbaceous, erect, leaves all linear, very entire (or serrated. WOODW.)

Var. 1. α. Huds. Leaf very long and narrow. See Dill. in R. 153. 12.

Grass Orache. Sea shore, &c. A. 8. *Pet.* 7. 6.

Var. 2. β. Huds. Very small, narrow-leaved. *H. ox.* 5. 32. 20.

—— 3. γ. Huds. Narrow-leaved, leaf more obtuse. DILL. l. c.

—— 4. Leaves toothed. *Pet.* 7. 4. See With.

6. A. Stem herbaceous, (branches) diverging ; leaves lanceolate, obtuse, entire, fem. calyxes peduncled. *pedunculata.*

Stalked Orache. Sea shores. A. 7—9. *E. Bot.* 232.

Var. 2. β. Huds. Leaves small. RAY syn. 153.9.

1155. A'CER. Herm. *Cal.* 5-cleft. *Cor.* 5-petalled. *Stam.* 8. *Pist.* 1. *Caps.* 2 or 3, 1-seeded, terminated by a wing.
Male. *Cal.* 5-cleft. *Cor.* 5-petalled. *Stam.* 8.

1. A. Leaves 5-lobed, unequally serrated, flowers racemous. (Racemes pendulous.) *Pseudoplatanus.*

Sycamore Tree. Hedges. T. 5. 6. *E. Bot.* 303.

Var. 2. Leaves glaucous, distantly serrated, filam. hairy. SMITH.

2. A. Leaves lobed, obtuse, emarginate. (Flow. in upright clusters. E. BOT.) *campestre.*

Com. Maple. Hedges. S. 6. *E. Bot.* 304.

Var. 2. β. Huds. Fruit villous, red ; wings reddish purple. See Dill. in R. 470. 3.

DIOECIA.

1160. FRAX'INUS. Herm. *Cal.* 0, or 4-parted. *Cor.* 0, or 4-petalled. *Stam.* 2. *Pist.* 1. *Seed* 1, lanceolate.
Fem. *Pist.* 1, lanceolate.

1. F. Leaves serrated, flowers apetalous. *excelsior.*

Com. Ash Tree. Woods. T. 4. 5. *Hunt.* i. p. 145.

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THE

BRITISH FLORA,

OR

A LINNEAN ARRANGEMENT

OF

BRITISH PLANTS.

WITH THEIR

GENERIC AND SPECIFIC CHARACTERS,

SELECT SYNONYMS,

ENGLISH NAMES,

PLACES OF GROWTH,

DURATION,

TIMES OF FLOWERING,

AND

REFERENCES TO FIGURES.

BY JOHN HULL, M. D.

Member of the Corporation of Surgeons, and of the Physical Society of London; of the Natural History Society of Edinburgh; and Secretary of the Literary and Philosophical Society of Manchester.

PART II.

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1799.

CLASS XXIV.

CRYPTOGAMIA.

FILICES.

1. *Fructifications in spikes.*

1169. EQUISE'TUM. *Spike* scattered. *Fructifications* peltate, valved at the base.

1171. OPHIOGLOS'SUM. *Spike* jointed. *Fructifications* opening horizontally all round.

1172. OSMUN'DA. *Spike* racemous. *Fructif.* 2-valved.

1185. LYCOPO'DIUM. *Spikes* oblong, with imbricated scales, or leaves. *Fructif.* axillary, reniform, 2-valved, elastic.

2. *Fructifications frondose, on the under surface (or margin of the frond), disposed in dots, lines, &c.).*

1173. ACROS'TICHUM. A *Spot* occupying the whole disk.

1179. POLYPO'DIUM. Distinct *Dots* on the disk.

1178. ASPLE'NIUM. *Lines* on the disk, nearly parallel, various.

1175. BLECH'NUM. *Lines* on the disk contiguous (and parallel) to the mid-rib on both sides.

1174. PTE'RIS. *Lines* along the circumference of the margin.

1180. ADIAN'THUM. *Spots* covered with the reflected margin of the points (of the frond).

1181. TRICHOM'ANES. *Fructifications* solitary, placed on the very margin (of the frond).

—— CYATH'EA. (SMITH.) See Polypodium *fragile*.

—— HYMENOPHYL'LUM. (SMITH.) See Trichomanes *tunbrigense*.

3. *Fructifications at (or very near) the root.*

1183. PILULA'RIA. *Fructif.* (globular) 4-celled.
1184. ISO'ETES. *Fructifications* 2-celled.

MUSCI.

1. *Not calyptred (or with only the reliques of a calyptre).*

1185. LYCOPO'DIUM. *Capsule* 2-valved, sessile. See Page 228.
1187. SPHAG'NUM. *Caps.* with an even mouth. (*Capsule* roundish, lidded, mouth even. *Calyptre* imperfect, torn, the lower part surrounding the base of the caps:)

2. *Calyptred, dioicous.*

1191. SPLACH'NUM. *Capsule* on a very large apophysis.
1192. POLYT'RICHUM. (*Calyptre* villous.) *Caps.* (sometimes) on a very small marginate apophysis.
1193. MNI'UM. *Caps.* without any apophysis.

3. *Calyptred, monoicous.*

1189. PHAS'CUM. *Caps.* lidded, mouth ciliate. (*Caps.* without any distinct separating lid. *Calyptre* minute, deciduous.)
1194. BRY'UM. *Caps.* on a terminal peduncle, arising from a tubercle. (*Caps.* lidded, on a terminal, or lateral pedunc. not arising from a perichætium.)
1195. HYP'NUM. *Caps.* on a lateral peduncle, issuing out of a perichætium.
1190. FONTINA'LIS. *Caps.* sessile, envellopped in an imbricated perichætium.
1188. BUXBAU'MIA. *Caps.* peduncled, membranous on one side. (*Lid* obliquely inserted.)

Obs. The Linnean divisions and characters of the Musci are here given, though both are liable to considerable objections.—The term *anthera* is every where translated *capsule* through this order, as Hedwig has very satisfactorily shewn that seeds are contained in it; and has also discovered the real anthers in what were thought to be the fem. flowers by Linnæus.

ALGÆ.

1. *Terrestrial.*

1198. MARCHAN'TIA. *Flow.* common calyx peltate, flowering underneath.
1196. JUNGERMAN'NIA. *Flow.* calyx simple, 4-valved.
1197. TARGIO'NIA. *Flow.* calyx 2-valved.
—— SPHÆROCAR'POS. (MICHELI.) *Flow.* calyx pyriform, perforated at the top. *Caps.* spherical.
1201. ANTHOC'EROS. *Flow.* calyx tubular. *Caps.* subulate, 2-valved.
1199. BLA'SIA. *Fructif.* cylindrical, tubular.
1200. RIC'CIA. *Fructif.* Granules imbedded in the frond.
1202. LI'CHEN. *Fruct.* receptacle even, glossy.
1208. BYS'SUS. *(Fruct.?)* Substance downy, or powdery. M.

Obs. Schreber has removed the seven first genera of this division to a new Order, which he has named Hepaticæ, and has placed Lichen and Byssus with the four following genera in the Order Algæ.

2. *Aquatick.*

1204. TREMEL'LA. *A.* gelatinous.
1206. UE'VA. *A.* membranous.
1205. FU'CUS. *A.* coriaceous.
1207. CONFER'VA. *A.* capillary.

FUNGI.

1. *With a Pileus.* *(Helvella.)*

1209. AGAR'ICUS. Pileus gilled underneath.
—— MERU'LIUS. (HALLER.) See Agaricus *umbelliferus.*
1210. BOLE'TUS. Pileus porous underneath.
—— FISTULI'NA. (BULLIARD.) See Boletus *hepaticus.*
1211. HYD'NUM. Pileus echinated underneath.
1212. PHAL'LUS. Pileus even underneath.

2. *Without a Pileus.*

1214. HELVEL'LA. *F.* turbinate.
1216. CLAVA'RIA. *F.* oblong.

1215. Pezi'za. *F.* campanulate.
—— Nidula'ria. (Bulliard.) See Peziza *lentifera.*
—— Auricula'ria. (Bulliard.) *F.* flat, ear-shaped.
1217. Lycoper'don. *F.* globular.
—— Tu'ber. (Bulliard.) See Lycoperdon *Tuber.*
—— Carpob'olus. (Micheli.) See Lycoperdon *Carpobolus.*
—— Æcid'ium. (Persoon.) See Lycoperdon *innatum.*
1213. Clath'rus. *F.* latticed.
—— Trich'ia. *F.* caps. roundish, mostly opening horizontally, seeds entangled in woolly fibres.
1218. Mu'cor. *F.* vesicular, stipitate.
—— Sphæ'ria. (Haller.) *F.* caps. mostly spherical, full of black powder, opening at the top.
—— Reticula'ria. (Bulliard.) *F.* at first pulpy, of an irregular form, opening indiscriminately.
—— Ure'do. (Persoon.) *F.* a mealy powder, without a pericarp, under the cuticle of plants.

Obs. Bulliard has arranged the Fungi according to the situation of the seeds, and in this has been followed by Dr. Withering, whose distribution is here given, viz.

1. Seeds on the under surface. *Merulius, Agaricus, Fistulina, Boletus, Hydnum, Helvella, Auricularia.*
2. Seeds on the upper surface. *Peziza, Nidularia, Phallus.*
3. Seeds on every part of the surface. *Clavaria.*
4. Seeds in the substance of the plant. *Tuber, Lycoperdon, Reticularia, Sphæria, Trichia, Mucor.*

FILICES.

1169. Equise'tum. *Spike* (ovato-oblong) with peltate fructifications, opening (inwards) at the many-valved base.

Obs. Linnæus is not quite accurate in his language in describing the different species of Equisetum, for if the term *Frons* be used, *Caulis* is inadmissible, because he has named the trunk of a frons *Stipes*. Bolton has used the terms *first, second,* and *third leaves*, and Withering *stem, stalk,* and *leaves* in his char., but, since what are named

leaves agree perfectly in structure with the trunk, or stipe, the different species may in my opinion be most properly, and most intelligibly described by considering an Equisetum as consisting of a stipe, and branches, in the characters subjoined to those of Linnæus.

1. E. Stem spiked, fronds compound. (Fertile and barren stipes branched, branches numerous, subdivided.) *sylvat'icum.*

Wood Horse-tail. Moist places. P. 3—5. *Bolt.* 33.

Obs. The fertile stipe, or scape, is distinguished in its naked state from E. *arvense* by its sheath being 4-toothed, and 12-striated at the base.

Var. 2. β. Huds. Procumbent, branches all pointing one way. DILL. in R. 131. 5.

Obs. This var. is owing to the plant's being by some accident so bent, or broken, as to lie flat on the ground. BOLTON.

2. E. Stem angular, fronds simple. (Fertile and barren stipes branched, sheaths mostly 8-toothed; branches undivided, 5-cornered; sheaths 5-toothed.) *palus'tre.*

Marsh Horse-tail. Watery pl. P. 5—7. *Bolt.* 35.

Var. 2. E. *sylvaticum* γ Huds. Branches very long and slender. BOLT. DILL. in R. 131. 6.

3. β. Huds. *polystachion.* The upper branches producing small spikes. BOLT. DILL. in R. 130. 7. and *Plate* 5. 3.

Obs. The latter var. generally arises from the primary stem being bitten off, the former from the plant's growing in shady situations on the banks of rivulets. BOLT.

3. E. Fruit-bearing scape naked, barren one frondose. (Fertile stipe unbranched, barren stipe branched, sheaths mostly 12-toothed; branches numerous, verticillate, undivided, 4-cornered, sheaths 4-toothed.) *arven'se.*

Corn Horse-t. Moist cornfields. P. 4-5. *Bolt.* 34.

Var. 2. β. Huds. Branches very long, and slender. DILL. in R. 131. 8.

Obs. The plants assume this appearance from growing amongst tall grass in moist shady places. And var. γ. Huds. Dill. in Ray 130. 3. is only the dead fertile stem. BOLTON.

4. E. Stem striated, fronds mostly simple. (Fertile stipes very thick, unbranched, sheaths about 24-toothed, barren stipes branched, branches numerous, verticillate, simple.) *fluviat'ile.*

River Horse-t. Boggy pl. P. 4—6. *Bolt.* 36. 37.

limo'sum. 5. E. Stem nearly naked, smooth. (Fertile and barren stipes smooth, branches none, or very few.)
Smooth Horse-tail. Shallow ponds. P. 5. 6. *Bolt.* 38.

Obs. We frequently find one or two branches from the lower joints of the stipe, and in some situations it has been observed to throw out here and there as many as seven at a joint, but not in regular verticils.

hyema'le. 6. E. Stem naked, rough, somewhat branched at the base. (Fertile and barren stipes rough, branches rarely more than 2.)
Rough Horse-tail. Marshy places. P. 7. 8. *Bolt.* 39.
Var. β. Huds. Stem rush-like, unbranched. Ray syn. 131. 11.
—— 3. Stem with numerous lateral branches. St. *Matth.* 1028.

Obs. This is owing to the plants being browsed early in the spring. Griffith. See Withering.

1171. Ophioglos'sum. *Spike* jointed, 2-rowed, the joints opening transversely. (*Caps.* numerous, roundish, collected into a 2-rowed spike by an envelloping membrane, bursting transversely, destitute of a ring. *Seeds* many, very minute. E. Bot.)

vulga'tum. 1. O. Frond ovate. (Leaf ovate, veinless, bearing the spike. E. Bot.)
Adder's-tongue. Moist mead. P. 5. 6. *E. Bot.* 108.
Var. 2. *many-spiked.* Peduncle simple, or divided. *Bolt.* 2. fig. 1.

1172. Osmun'da. *Spike* branched. *Fructific.* globular. (*Caps.* naked, globose, 2-valved. E. Bot.)

1. *Scapes sitting on the stem, at the base of the frond.*

Luna'ria. 1. O. Scape on the stem, solitary, frond pinnate, solitary.
Moonwort. Mount. past. P. 5—7. *E. Bot.* 318.
Var. 2. β. Lin. 2. With. Leaves, and scapes several. *Camd.* 644.
—— 3. β. Huds. Bolt. 3. With. Leaves dissected. Ray syn. 129. *Ger.* 406. 3.

Obs. O. *Lunaria* and *regalis* are without the elastic ring, which is present in Polypodium, Blechnum, Pteris, &c. Stokes. See With. V. 3. 762.

2. *Fronds bearing the fructifications.*

2. O. Fronds bipinnate, raceme-bearing at the summit. *regal'lis.*

Flowering Fern. Boggy pl. P. 6—8. *E. Bot.* 209.

Obs. The upper pinnæ gradually lose their leafy appearance, and become clusters of capsules.

3. *Fronds barren, and fruit-bearing.*

3. O. Fronds lanceolate, pinnatifid, segm. confluent, very entire, parallel. See Blechnum *Sp.* *Spi'cant.*

4. O. Fronds super-decompound, pinnæ alternate, roundish, incised. Syst. Veg. Pteris *heterophylla* Sp. Pl. See Pteris *crispa.* *cris'pa.*

1185. Lycopo'dium. *Fructif.* sessile in the axils of scales disposed in oblong imbricated spikes, or of the leaves themselves. *Caps.* reniform, 2-valved, elastic. *Seeds* very numerous, and minute. Schreber Gen. Pl.

Obs. Hedwig has very satisfactorily shewn that this genus by no means ought to retain a place amongst the *Musci*, where it was ranked by Linnæus. And since the fructifications resemble those of Osmunda, and are mostly disposed in spikes, I have chosen rather to place it amongst the *Spiked Filices*, than to adopt the heterogeneous Order of Miscellaneæ of Schreber. Some of the species indeed are not properly spiked, and amongst these is one British species, viz. L. *Selago*; but upon the whole this appears to me the most convenient place for the genus. That I might not however disappoint those who prefer considering it as belonging to the Order Musci, I have also given it its usual place in the system, with the Linnean char., and a reference to the Filices. —Prof. Schreber has introduced into his new Order of Miscellaneæ, Lycopodium, Equisetum, Pilularia, and Isoetes, together with three other genera, not hitherto discovered in Britain.

1. *Spikes mostly in pairs.*

1. L. Leaves scattered, ending in filaments, spikes cylindrical, peduncled, in pairs (generally, 1—3, scaly). *clava'tum.*

Club-moss. Mount. P. 7. 8. *Dill.* 58. 1. *E. Bot.* 224.

2. L. Leaves 4-rowed, imbricated, acute, stems erect, bifid, spikes sessile, cylindrical. (Stems creeping, branches erect, dichotomous, spikes scaly.) *alpi'num.*

Mountain C. Mount. P. 8—10. *Dill.* 58. 2. *E. B.* 234.

2. *Spikes solitary.*

inunda'tum. 3. L. Leaves scattered, very entire, spikes terminating, leafy (scaly).
Marsh C. Heaths. P. 6—9. *Dill.* 61. 7. *E. Bot.* 239.
Obs. The scales of the spikes are much broader at the base, and sometimes 1, or 2-toothed.

Selaginoi'des. 4. L. Leaves scattered, ciliate, lanceolate, spikes terminating, leafy.
Prickly Club-moss. Heaths. P. 6—9. *Dill.* 68.

anno'tinum. 5. L. Leaves scattered, 5-rowed, somewhat serrated, stem with annual joints, spikes terminating, smooth, erect (scaly).
Welch C. Mount. of Carnarv. P. 6—9. *Dill.* 63. 9.

Sela'go. 6. L. Leaves scattered, 8-rowed, stem dichotomous, (rather) erect, fastigiate, flowers scattered. (Caps. generally in the axils of the leaves of the highest branches.)
Fir Club-moss. Mount. P. 4—10. *E. Bot.* 233.
Var. 2. The upper branches producing buds.—Viviparous? *Dill.* 56. 1. A.

1173. ACROS'TICHUM. *Fructifications* covering the whole surface of the frond.

1. *Frond simple, divided.*

septen'trionale. 1. A. Fronds naked, linear, laciniated. See Asplenium *septentrionale.*

2. *Frond almost bipinnate.*

ilven'se. 2. A. Fronds almost bipinnate, pinnæ opposite and united, obtuse, hirsute underneath, very entire at the base. See Polypodium *ilvense.*
Obs. In A. *septentrionale* the fructific. are placed, when immature (which is the proper time for examining the Filices), in short parallel lines; in A. *ilvense* they are placed in round dots, the former ought therefore to be made an Asplenium, the latter a Polypodium. See Bolt. Introd. p. 7.

1179. POLYPO'DIUM. *Fructif.* in roundish dots scattered over the (under) surface of the frond.
Obs. The characters of the species are most observable at the lower part of the frond.

1. *Frond pinnatifid, the lobes united (at the base).*

vulga're. 1. Fronds pinnatifid, pinnæ (lobes) oblong, somewhat serrated, obtuse, root scaly.
Com. Polypody. Roots of trees. P. 6—10. *Bolt.* 18.

Obs. Lin. is not so exact as might be wished in the use of terms in his descriptions of the different species of Polypodium, Asplenium, &c. one instance has already occurred, what are denominated lobes in the subdivision being named pinnæ in the specific char. Notwithstanding this want of precision, the Linnæan char. are here translated literally, but in order to facilitate the investigation of these difficult genera, in the additional char., and distinctive marks, a more precise language is employed, of which it will be necessary to give a short explanation. A *Frond*, in this division at least, consists of a stipe and a leaf or leaves, but the term Frond is commonly used synonimously with Leaf.

A *Simple Frond* has a stipe and a leaf, e. g. Asplenium *Scolopendrium.*

A *Pinnatifid Frond* has a stipe, leaf, and lobes, e. g. P. *vulgare.*

A *Pinnate Frond* has a stipe, leaf, and leaflets, e. g. P. *Lonchitis.*

An *Almost Bipinnate Frond* has a stipe, leaf, pinnatifid leaflets, and lobes, e. g. P. *F. mas.*

A *Bipinnate Frond* has a stipe, leaf, pinnæ, and leaflets, the leaflets either simple, as in P. *Thelypteris*, or pinnatifid, with deeply cut lobes, as in P. F. *Fœmina.*

A *Super-decompound Frond* has a stipe, pinnæ, pinnulæ, and leaflets, the leaflets simple, or lobed; or if we consider the stipe as supporting more than one leaf, then the leaves are bipinnate, as in P. *Dryopteris.*

Var. 2. β. Huds. V. 2. With. Lobes doubly serrated. Dill. in Ray 117. 2. *Bar.* 38.

—— 3. 3. With. Lobes deeply crenate. *Bolt.* 2. 5. 6.

—— 4. γ. Huds. 4. With. *Cambricum.* P. *cambricum.* Lin. Lobes pinnatifid. *Bolt.* 2. 5. a.

Obs. Lin. has thus described it, "Fronds pinnatifid, pinnæ lanceolate, lacero-pinnatifid, serrated."—But it cannot properly be made a distinct species, as in this state it is always barren.

Var. 5. *acutum.* V. 5. With. Lobes very long, distantly serrated, acuminate. Griffith.

2. *Frond simply pinnate.* (Leaflets not pinnatifid.)

2. P. Pinnæ (leaflets) crescent-shaped, ciliato-serrated, declining, stems strigose (with chaffy scales). *Lonchi'tis.*

Spleenwort P. Clefts of rocks. P. 5—10. *Bolt.* 19.

3. *Frond almost bipinnate.* (Leaflets pinnatifid. Thelypteris.)

3. P. Leaflets obtusely triangular, opposite below, alternate above, pinnatifid, lobes roundish, in- *Ilven'se.*

distinctly crenate, hairy underneath, stipe naked. P. *Ilvense*. Dicks, With. Acr. *Ilvense* Lin. A. *alpinum* Bolt.

—— Ben Lawers. P. 7. 9. *Bolt*. 42.

Obs. Dickson has no doubt of this plant being the A. *Ilvense* Lin. and Huds. having compared it with the specimens at Sir J. Banks's, and Dr. Smith's. See Lin. Tr. ii. 291.

Arvo'nicum. 4. P. Leaflets lanceolate, pinnatifid, hairy underneath, lobes lanceolate, stipe hairy. P. *arvonicum* With. Acr. *Ilvense* Bolt. Huds.

—— Snowdon. P. 7—9. *F. Dan.* 391. *Bolt.* 9. ?

Obs. Mr. Griffith considers Bolton's plant as P. *fragile* in a small and stiff state, and not the plant found by Mr. Lloyd in Caernarvonshire. See Withering.

Phegop'teris. 5. P. Lowest leaflets reflected, the pairs united by a quadrangular pinnule. (Lowest pair of leaflets placed back to back, not confluent, all the others united by a 4-cornered appendage at the base.)

Wood Polypody. Clefts of rocks. P. 6—10. *Bolt.* 20.

Oreop'teris. 6. P. Leaflets lineari-lanceolate, lobes very entire, rather obtuse, capsules in distinct dots near the margin. Ehrh. Pl. Cr. Dicks. Lin. Tr. ii. With. P. *Thelypteris* Ray. Huds. Lightf. Bolt. *Heath Polypody*. Woods. P. 7—10. *Bolt.* 22.

Obs. When rubbed betwixt the hands it gives out an agreeable scent. It differs from P. *Thelypteris* in having a large scaly root; in the fructif. being always disposed along the margin, and never confluent; and in being a much larger plant. See Lin. Tr.

F. mas. 7. P. Fronds bipinnate, pinnæ obtuse, crenulate, stipe chaffy—Flowers reniform. (Leaves almost bipinnate, leaflets lineari-lanceolate, lobes obtuse, finely serrated, stipe and midrib chaffy. With.)

Male Fern. Woods, &c. P. 6—10. *Bolt.* 24.

dentatum. 8. P. Leaflets ovato-lanceolate, opposite below, alternate above, pinnatifid, lobes sparingly cut at the sides, finely toothed at the ends, stipe very slender. Dicks. With.

— Clefts of rocks in the Highl. *Dicks. fasc.* iii. 7. 1.

fontanum. 9. P. Fronds almost bipinnate, lanceolate, leaflets roundish, finely cut, stipe smooth. Sp. Pl. (Leaflets alternate, triangular, obtuse, deeply pinnatifid, lobes sharply toothed at the end, stipe very slender. With.

—— Old walls and rocks. P. 6—9. *Bolt.* 21.

Obs. It has the habit of P. *fragile*, but the leaflets are closer, not so deeply subdivided, the flower-bearing dots larger, proceeding not from a roundish scale, but from a linear oblong white valve, or cleft. Dill.

4. *Fronds bipinnate.* (F. mas.)

10. P. Frond bipinnate, pinnæ pinnatifid, very entire, covered entirely with pollen underneath. (Pinnæ lineari-lanceolate, alternate below, opposite above, leaflets parabolic, very entire.) Syst. Veg. With. Acr. *Thelypteris* Sp. pl. Bolt. *Thelyp'teris.*

Marsh Polypody. Bogs. P. 7—10. *Bolt.* 43.

Obs. In habit it very much resembles P. *Oreopteris*, but is distinguished by the creeping root; and the fructif. being at first in small whitish dots disposed irregularly on each side of the rachis of the leaflets, afterwards becoming confluent, and covering the whole under side. See Bolt.

11. P. Pinnæ crescent-shaped, ciliato-dentate, stipe strigose. (Leaflets appendaged on one side at the base, thorny at the point and margin.) *aculea'tum.*

Prickly Polyp. Woods. P. 6—10. *Bolt.* 26. 1. 3.

Obs. P. *lobatum* Huds. does not differ specifically from P. *aculeatum*. See Bolton.

Var. 2. γ. Huds. 2. With. Sprinkled with a moss-like down. *Pluk.* 180. 1.

12. P. Pinnæ lanceolate, leaflets lineari-ovate, pinnatifid, and serrated with sharp-pointed teeth. With. *spinulo'sum.*

——Bogs on Birming. heath. P. 7—9. *F.D.*707.

Obs. It differs from P. *cristatum* in being more delicate, the stipe scarcely at all scaly, the leaflets not unequal in size, and the rachis of the leaflets serpentine. With.

13. P. Pinnulæ lanceolate, pinnatifid, acute. (Pinnæ lineari-lanceolate, leaflets lineari-lanceolate, pinnatifid, acute, stipe smooth upwards.) *F. fœ'mina.*

Female Polyp. Shady places. P. 6—9. *Bolt.* 25.

14. P. Fronds almost bipinnate, leaflets ovato-oblong, pinnæ somewhat obtuse, acutely serrated at the end. Sp. Pl. Fronds bipinnate. Fl. Suec. (Pinnæ triangular, leaflets deeply pinnatifid, lobes oblong, obtuse, serrated, ciliate.) *crista'tum.*

Crested Polyp. Shady places. P. 6—9. *Bolt.* 23.

Obs. The lower leaflets on the under side of the first pair of pinnæ are considerably longer than those opposite to

them. And the clusters of capsules are frequently disposed in a double row.

frag'ile. 15. P. Leaflets remote, pinnæ roundish, incised. (Pinnæ somewhat lanceolate, leaflets remote, incised, or toothed, stipe very slender and brittle.) Cyathea *fragilis*. E. Bot.

Var. 1. Pinnæ long, lanceolate, acute, distant, leaflets distant, triangular-lanceolate, acuminate. *Brittle Polyp.* Fissures of rocks. P. 6—9. *Bolt.* 46.

Var. 2. Pinnæ lanceolate, somewhat obtuse, leaflets obovate, or roundish.

—— Mountains. *Bolt.* 27.

Obs. Both these var. are sometimes found growing from the same root. See With.

re'gium. 16. P. Leaflets (pinnæ) nearly opposite, pinnæ (leaflets) alternate, laciniated. Lin. Forster. P. *trifidum* With. Cyathea *incisa* E. Bot.

—— Wall, near Walthamstow, Forst. *E. B.* 163.

Obs. Dr. Smith has given the following char. to his new genus Cyathea. "Fructif. scattered, roundish, growing out of an hemispherical calyx, which bursts at the top without a lid." And C. *incisa* is thus described by him, "Frond lanceolate, bipinnate, pinnatifid, segments lobed, obtuse, beardless, stipe slightly winged, calyx laceniated, and turned to one side." He is uncertain whether the plant in question be specifically distinct from *C. fragilis*, and if so, whether it be P. *regium* Lin.—Withering observes that it is sufficiently distinct from P. *fragile*, the stipe being edged with a narrow border on each side, the pinnæ triangular-lanceolate, and the leaflets 3-cleft.

rhæ'ticum. 17. P. Leaflets and pinnæ remote, lanceolate, serratures acuminate. (Pinnæ lanceolate, distant, leaflets deeply lobed, lobes pretty regularly toothed at the edges. With.)

—— Mountains. P. 6—9. *Bolt.* 45.

Obs. It is distinguished from P. *fragile* by the pinnæ not becoming confluent at the top, and the first leaflets on the upper side of the pinnæ being considerably larger than those on the lower. Bolton.

5. *Frond more than decompound.*

Dryop'teris. 18. Leaflets 3 together, bipinnate. (Leaf triangular, tripinnate, leaflets oblong, obtuse, mostly entire, stipe very long.)

Branched Polyp. Rocky woods. P. 6—9. *Bolt.* 28.

Var. 2. Larger and firmer, largest leaflets divided half-way down to the mid-rib. Bolt. With.

—— Peak of Derbyshire, &c. — *Bolt.* 1. 1.

1178. ASPLE'NIUM. *Fructif.* in lines scattered on the disk of the frond. (Lines straight and nearly parallel.)

1. *Frond simple.*

1. A. Fronds simple, cordato-lingulate, very entire, stipes hirsute. Scolopendrium *vulgare*. Symons. *Scolopen'drium.*
Hart's-tongue. Shady rocks. P. 8—10. *Bolt*. 11.
Var. 2. Leaves curled and jagged at the edge. *J. B.* iii. 757. 3.
—— 3. Leaves many-cleft at the end. *Ger.* 1138. 2.
—— 4. Leaves many-cleft at the edges. *Tourn.* 451.
—— 5. Stipe branched, with 3 or more leaves. *H. ox.* 14. 8. See Withering.

2. A. Leaves lineari-lanceolate, simple, or forked, sometimes 1 or 2-toothed. Acrostichum *septentrionale*. Lin. *septen'triona'le.*
Forked Maidenhair. Rocks. P. 7. *Bolt*. 8.

2. *Frond pinnatifid.*

3. A. Fronds pinnatifid, lobes alternate, confluent, obtuse. (Leaves so scaly underneath that the fructif. are inconspicuous.) Scolopendrium *Ceterach*. Symons. *Cet'erach.*
Com. Spleenwort. Old walls. P. 5—10. *Ger.* 1140. 1.

3. *Frond pinnate.*

3. A. Fronds pinnate, pinnæ (leaflets) roundish, crenate. *Trichom'anes.*
Spleenwort. Old walls. P. 5—10. *Bolt*. 13.
Var. 2. Leaflets lobed, lobes crenate. *Bolt*. 2. 2.

4. A. Fronds simply pinnate, leaflets alternate, cuneiform, incised towards the end. *alter'nifol'lium.*
—— Rocks in Scotland. P. — *Jacq. Mis.* 5. 2.

5. A. Fronds pinnate, pinnæ roundish, crenate, truncated at the base. HUDS. (Leaves lineari-lanceolate, leaflets alternate, rhomboidal, crenate on 2 sides.) A. *Trichomanes* γ. Lin. *vir'ide.*
Green Spleenwort. Moist rocks. P. 6—10. *Bolt*. 14.
Var. 2. β. Lin. Huds. 2. With. Leaflets elegantly incised. See Dill. in R. 120. 3. *H. ox.* xiv. 3. 13.
—— 3. With. A. *Trichomanes* β. Huds. Bolt. Leaf branched. *Bolt*. 2. 3.

Obs. Var. 3. is A. *Trichomanes ramosum* Lin., and thus described by him, "Fronds doubly pinnate, pinnæ (leaflets) obovate, crenate, lower leaflets smaller."—In this description we find the terms pinnæ and leaflets used indiscriminately.

mari'num. 6. A. Fronds pinnate, pinnæ obovate, serrated upwards, gibbous, obtuse, cuneiform at the base. (Leaflets mostly ovate, obtuse, serrated, gibbous on the upper margin near the base.)
Sea Spleenwort. Rocks. P. 6—9. *Bolt.* 15.

Var. 2. BOLT. WITH. Leaflets deeply cut, segm. obtuse, crenate. *Bolt.* 2. 4.

4. *Fronds decompound, pinnæ alternate.*

Ru'ta mura'ria. 7. A. Fronds alternately decompound, leaflets (simple) cuneiform, somewhat crenate.
White Maidenhair. Walls. P. 6—10. *Bolt.* 16.

Adian'tum ni'grum. 8. A. Fronds almost tripinnate, leaflets (pinnæ) alternate, pinnæ (leaflets) lanceolate, inciso-serrated. (Leaves almost tripinnate, pinnæ ovato-lanceolate, leaflets alternate, triangulari-lanceolate, pinnatifid, lobes serrated.)
Black Maidenhair. Shady pl. P. 4—10. *Bolt.* 17. 1.

Var. 2. β. Huds. V. 2. With. Long-leaved, leaflets long, with very slender (capillary) oblong segments. RAY syn. 127. 13. *Pluk.* 282. 3.

—— 3. BOLT. Leaf lineari-lanceolate, pinnæ alternate, distant, ovato-lanceolate, leaflets roundish, crenate. *Bolt.* 17. 2.

lanceola'tum 9. A. Fronds doubly-pinnate, lanceolate, leaflets alternate, pinnæ obovate, inciso-crenate. HUDS. (Pinnæ ovato-lanceolate, leaflets obovate, toothed above.)
Spear Spleenw. Walls, &c. P. 5—9. *E. Bot.* 240.

1175. BLECH'NUM. *Fructif.* in 2 parallel lines, contiguous to the rib of the frond (leaflet, or lobe).

Spi'cant. 1. B. Barren and fertile fronds pinnate below, deeply pinnatifid above, leaflets of the latter longer, narrower, linear, rather acute. SMITH. WITH. Osmunda *Spicant.* Lin.
Rough Spleenw. Heaths, &c. P. 7—9. *Curt. Bolt.* 6.

1174. PTE'RIS. *Fructif.* in marginal lines.

aquili'na. 1. P. Fronds super-decompound, leaflets pinnate, pinnæ lanceolate, the lowest pinnatifid, the up-

permost smaller. (Leaf triangular, pinnæ, and pinnulæ opposite, triangulari-lanceolate, leaflets simple, oblongo-linear, obtuse.)
Com. Brakes. Woods, &c. P. 8. *Bolt.* 10.

Obs. The root cut obliquely gives a sort of representation of the Imperial Eagle. LIN.

2. P. Fronds more than decompound, pinnæ alternate, roundish, incised. (Leaves, pinnæ, and pinnulæ somewhat oval, barren leaflets pinnatifid, lobes incised, fertile leaflets at first like the barren ones, afterwards more simple.) SMITH. WITH. Osmunda *crispa.* Lin. *cris'pa.*
Stone Fern. Rocks, &c. P. 8. *Bolt.* 7.

Obs. Though the barren and fertile fronds appear very different, they are at first exactly alike, the segments and lobes of the fertile leaflets gradually disappearing as the margins turn inwards. I have met with some tufts of this Fern, where there was scarcely one barren frond.

Var. 2. Leaves curled. WITH.

1180. ADIAN'THUM. *Fructific.* in terminating (oval) spots under the folded margin of the frond.

1. A. Fronds decompound, leaflets (pinnæ) alternate, pinnæ (leaflets) cuneiform, lobed, pedicelled. *Capil'lus Ven'eris.*
True Maidenhair. Rocks, &c. P. 5—9. *Bolt.* 29.

1181. TRICHOM'ANES. *Fructif.* solitary (urn-shaped), terminated by a setaceous style, inserted on the very margin of the frond.

1. T. Fronds almost bipinnate, pinnæ (leaflets) alternate, crowded, lobed, (lobes) linear. *pyxidif'erum?*

Obs. The plant found in this island and believed to be T. *pyxidiferum* Lin. appears to be only a var. of Tr. *Tunbr.*— The foreign specimens of Tr. *pyxidiferum* according to With. have a strong opake leaf, and the fructif. are large, urn-shaped, sessile, brown orange.

2. T. Fronds pinnate, pinnæ oblong, dichotomous, decurrent, toothed. (Leaf almost bipinnate, leaflets alternate, lower ones pinnatifid, upper ones forked, lobes linear, toothed, pedunc. winged.) *tunbrigen'se.*
Tunbridge Goldilocks. Rocks. P. 5—10. *E.B.* 162.

Obs. Strictly speaking this plant is bipinnatifid, the primary divisions not extending to the mid-rib of the leaf,

Var. 2. Fructif. on naked pedunc. With. *Bolt.* 31.

Obs. Some of the plants, which I have had an opportunity of examining, are in an intermediate state between the fig. of Bolt., and E. Bot., the pedunc. projecting beyond the margin of the leaflet nearly half a line, and winged with a fine membrane, which grows gradually narrower as it approaches the involucre, or calyx. When the plant is dry and shrivelled, the pedunc. appears almost naked, but if moistened, and viewed with a magnifying-glass, the membranous edge appears. Hence I am led to consider Bolton's plant as not specifically distinct from Sowerby's.

Var. 3. Leaflets larger, pinnatifid, lobes laciniated. Bolt. With. T. *pyxidiferum.* Huds. Dill. in R. 128. 14. *Plate* 3. *f.* 3. & 2. *Bolt.* 30. & 2. 7.

Obs. Bolton found the plant he has figured in Bell Bank, where Richardson first discovered it, and is of opinion that it is only a luxuriant variety. In this state it has never been found with fructifications upon it, but Mr. Griffith has met with fructifications upon smaller leaves proceeding from the same root. See Withering.

Obs. 2. Dr. Smith has established a new genus of Fern, with the subjoined name and character, and refers the plant in question to it, as it has not the urn-shaped, undivided invol., and long column, or style of Trichomanes.

" Hymenophyllum. *Fructif.* inserted into the margin of the frond, distinct. *Involucre* two-valved, flattish, straight, opening outwards, longer than the *column.* (*Capsules* 2-valved, furnished with an elastic ring, and placed round the style-like column.)

tunbrigense. 1. H. Fronds alternately bipinnate, decurrent, sharply serrated, as well as the involucre, fructific. solitary at the upper margin of the base of each general division of the frond."

1183. Pilula'ria. *Male Flow.* at the side of the frond. *Fem. Fructif.* at the root, globular, 4-celled. (*Cal.* globular, 2-coated, the *outer* villous, 4-valved, the *inner* transparent, 4-valved, 4-celled, containing Anth. and Pist. *Anth.* very numerous, obconical. *Germ.* several, obovate, with a stricture near the top. *Stigma* conical, furrowed.)

globulif'era. 1. Pilularia.

Pepper-grass. Heaths. P. 6—9. *Dill.* 79. *Bolt.* 40.

Obs. This plant strictly speaking has a creeping stem, and the fructific. are placed upon it, but as the roots go off very near them, it may very well remain in this section.

1184. Iso'etes. *Male Fl. Anther.* within the base of the frond (inner leaves, sitting on a cordate scale.)
Fem. Fl. Capsule 2-celled within the base of the frond (outer leaves, sitting on a cordate scale).

1. I. Leaves subulate, semi-cylindrical, recurved. *lacus'tris.*
Quillwort. Lakes. P. 5—9. *Bolt.* 41. *Dill.* 80. 2.
Var. 2. β. Huds. V. 2. With. Creeping, leaf less rigid. Dill. in R. 306. 2. *Dill.* 80. 1.
—— 3. γ. Huds. V. 3. With. Brittle, leaf longer, and slenderer. Dill. in R. 307. 3.

MUSCI.

1185. Lycopo'dium. *Caps.* 2-valved, sessile. *Calyptre* 0. See Page 235.

1187. Sphag'num. *Caps.* lidded, mouth smooth. *Calyptre* none. (*Caps.* upon a small orb terminating the peduncle, often surrounded by the torn lower portion of the calyptre. *Peristome* 0. Schr.)

1. S. Branches deflected. *palus'tre.*
Grey Bog-moss. Bogs. P. 7. 8. *Hedw. F.* i. 1. 1.
Var. 2. The whole plant more slender, more branched. *Dill.* 32. 2.
2. S. Somewhat branched, erect. (A species of Bryum? Murray.) Leaves lineari-lanceolate, 3-rowed. Neckar. See Bryum *flexuosum* var. 3. *alpi'num.*
—— Bogs on Snowdon. —9. 10. *Dill.* 32. 3.
3. S. Branched, creeping, caps. 1-rowed, lateral. See Fontinalis *secunda.* *arbo'reum.*

1191. Splach'num. *Caps.* sitting on a large coloured apophysis. *Calyptre* caducous.

Obs. The term *apophysis* is here constantly used in the specific characters, although Lin. and his Son have used the terms *umbraculum* and *receptaculum*, as well as apophysis.

1. S. Apophysis globular. (Peduncle very long, greenish-red, capsule very small, lid obtuse, apoph. green. Lin. F.) *sphæ'ricum.*
—— Mount. near Sterling. — *Lin. F. Dis.* i. 1.
2. S. Apophysis bottle-shaped, nearly globular. (Leaves spatulate, distant. W.) *vasculo'sum.*

Orange Splachnum. Bogs. A. P.? 6—10. *Hedw.* ii. 15.

sagit'tifo'lium. 3. S. Apophysis cruet-shaped, leaves sagittato-lanceolate, acute. WITH.

—— Near Llyn Idwel. GRIFF. *With. Pl.* 18. *f.* 2.

ampulla'ceum. 4. S. Apophysis bottle-shaped, inversely conical. (Leaves acute, generally serrated.)

Purple Bottle-moss. Turfy bogs. A. 3—6. *E. B.* 144.

angusta'tum. 5. S. Caulescent, leaves bearing hairs (serrated upwards), peduncle very short. LIN. F. (Apophysis ovate. WITH.)

—— Alpine places in Scotl. DICKS. *Hedw.* ii. 12.

fastigiatum. 6. S. Apophysis oblong, leaves lanceolate, acuminate. DICKS. iii. 2. S. *brewerianum.* Hedw. S. *Breweri.* With. Not Brewer's plant in DILL. 345. 5.

—— On cow-dung. P. 10—1. *Hedw.* ii. 38.

ova'tum. 7. S. Apophysis obovate, leaves lanceolato-ovate; stemless. (Leaves broader, more shining than in S. *ampull.*, peduncles paler, golden yellow. DILL. P. 344.)

—— Rotten ground, Emott Moor. *Dill.* 44. 4.

mnioi'des. 8. S. Nearly stemless, receptacle oblong. LIN. F. (Apophysis obconical, caps. ovato-cylindrical, leaves lanceolate, very entire, acuminate. HEDW. and WITH.) Brewer's plant. See Dicks. iii. 2.

—— On dung, about Snowdon. P. — *F. Dan.* 192.

ten'ue. 9. S. Apophysis obconical, attenuated, leaves ovato-oblong, acute. DICKS. ii. 2.

—— Ben Lawers. —— *Dicks.* 4. 2.

Obs. It is distinguished from S. *urceolatum*, by its slender almost cylindrical apophysis.

urceola'tum. 10. S. Apophysis obconical, incrassated, leaves imbricated, ovate, concave, bristle-bearing at the point. DICKS. ii. 2.

—— Highlands of Scotland. P. — *Hedw.* ii. 13.

purpu're-um. 11. S. Capsules (dark purple), leaves lanceolate, serrulated upwards, awn-pointed. WITH.

—— About Llyn Idwel. GRIF. P. 6. 7. *With.* 18. 3.

frœlichia'num. 12. S. Capsule a club-shaped termination of the peduncle, leaves spatulate. (Apoph. very short, not distinguishable till the capsule be ripe.) WITH.

—— Eastern side of Snowdon. P. 9. *Hedw.* iii. 40.

1192. POLYT'RICHUM. *Capsule* lidded, (sometimes) sitting on a very minute apophysis. *Calyptre* villous. *Male* (mostly) a *Star* on a distinct plant.

Obs. The following arrangement, and descriptions of the species contained in the first division are taken from a valuable paper in the 4th vol. of the Lin. Tr. by Mr. Menzies.

1. *Calyptre double, outer villous, hairs pointing downwards.*

A. Stemless.

1. P. Leaves lanceolate, obtuse, very entire, rigid, caps. turbinate, rather erect. (Pedunc. $\frac{1}{4}$ to more than $\frac{3}{4}$ of an inch long.) MENZ. HUDS. ed. 1. Mnium *potytrichoides*. Lin. *subrotun'dum.*
— Heaths. P. 5. *Dill.* 55. 6. A. B. C. D. E. F.

2. P. Leaves lanceolate, rather obtuse, indistinctly serrulated at the end, caps. hemispherical, cernuous. (Peduncle $\frac{1}{2}$ to more than one inch long, nearly stemless.) MENZ. HEDWIG. Mnium *polytrichoides* Lin. *na'num.*
— Heaths. *Hedw.* i. 13. *Dill.* 55. 6. G. H. I. K. L. ?

B. Stem simple.

3. P. Leaves lanceolate, converging, somewhat obtuse, rigid, serrated at the point, caps. cylindrical oblique. (Pedunc. $\frac{1}{2}$—1 inch long.) MENZ. HEDW. WITH. Mnium *polytrichoides* β. Lin. sp. P. *nanum* Huds. *aloi'des.*
—— Heaths. P. 3—7. *Hedw.* i. 14. *Dill.* 55. 7.

4. P. Leaves lanceolate, acute, keeled, denticulato-serrated, rather erect, caps. ovate, indistinctly angular, oblique, without an apophysis. (Peduncle about 3 inches long.) MENZ. *grac'ile.*
—— Scotch mount. DICKS. — *Lin. Tr.* iv. 6. 3.

5. P. Leaves lineari-lanceolate, acute, serrulated, caps. quadrangular, with an apophysis at the base. (Pedunc. 2—4 inches long.) MENZ. LIN. &c. *commu'ne.*
—— Moist heaths, &c. P. 5—7. *Dill.* 54. 1.
Var. 2. Leaves shorter, and more rigid. DILL. 424. *Tab.* 542.

6. P. Leaves lanceolate, crowded, very entire, rigid, hair-bearing at the end, caps. quadrangular, with an apophysis at the base. MENZ. SCHR. *Spicil.* P. *commune* γ. Lin. Huds. *pilif'erum.*
—— Mountainous pastures. —— *Dill.* 54. 3.

C. Stem branched.

7. P. Leaves lanceolate, acuminate, rather erect, margins inflected, very entire, caps. quadran- *stric'tum.*

gular, sitting on an apophysis. (Pedunc. 1—2 inches long.) MENZ.

—— Near Taymouth, in Scotl. — *Lin. Tr.* iv. 7. 1.

rubel'lum. 8. P. Leaves lanceolate, keeled, rather obtuse, serrated, denticulated on the back, caps. nearly cylindrical, somewhat erect. (Stem ½ to about an inch high.) MENZ.

—— Heaths in Scotl. —— *Lin. Tr.* iv. 7. 3.

Obs. It differs from P. *aloïdes* in being larger, generally branched, its leaves serrated the whole length, and denticulated on the back along the course of the middle nerve.

urnig'erum. 9. P. Stem very much branched, peduncles axillary. LIN. Leaves lanceolate, acuminate, denticulato-serrated, rigid, caps. cylindrical, erect. (Pedunc. 1—1½ inch long, from the summit of the lower branches.) MENZ.

—— Mount. heaths, &c. P. 6—8. *Dill.* 55. 5.

alpi'num. 10. P. Stem very much branched, peduncles terminal. LIN. Leaves lineari-lanceolate, denticulato-serrated, rigid, caps. ovate, somewhat nodding. MENZ.

—— Mount. heaths, &c. P. 6—8. *Dill.* 55. 4.

2. *Calyptre single, hairs erect.*

A. Stem simple, or nearly so.

hercyn'icum. 11. P. Caps. urceolate, erect, on terminating pedunc., calyptre interruptedly hairy, leaves lanceolate, fleshy. HEDW. DICKS. WITH.

—— Scotch mountains. P. 6—10. *Hedw.* i. 15.

B. Stem branched.

stria'tum. 12. P. Caps. oblong, on short pedunc., axillary, or terminating, leaves lanceolate, acute, keeled, recurved. P. *striatum* β. Huds. Orthotrichum *striatum* Hedw. Brium *striatum* Lin. With.

—— On trees in woods. P. 2—4. *Dill.* 55. 8.

tecto'rum. 13. P. Caps. on short peduncles, mostly axillary, veils conical, denticulated at the base. P. *striatum* β. Huds. Orth. *anomalum.* Hedw. B. *striatum* β. Lin. B. *tectorum* With.

—— On walls, stones, &c. — 2—4. *Dill.* 55. 9.

Obs. Much smaller than P. *striatum*, leaves smaller, darker green. See Dill. P. 432.

ses'sile. 14. P. Caps. nearly sessile, leaves triangular, straight, keeled. P. *striatum* γ. Huds. B. *striatum* γ. Lin. B. *sessile.* With.

—— On rocks near Bangor. — 8—11. *Dill.* 55. 10.

Obs. Stem about an inch high, not branched at the base like the two preceeding species, but divided above into several branches, which are shorter, and do not spread. DILL. P. 433.

15. P. Caps. ovato-oblong, with very hairy acute calyptres, pedunc. thicker above, longer than the caps., leaves subulate. P. *striatum* δ. Huds. Br. *striatum* δ. Lin. B. crispum WITH. Orthotrichum *crispum*. Hedw. *capillaceum.*

—— Woods near Southgate. 3—5. *Dill.* 55. 11.

Obs. The pedunc. are thick in proportion to their length, and the leaves have a broadish base, becoming of a hair-like fineness above, and curl much on drying. See Dill. P. 433.

16. P. Caps. ovato-cylindrical, erect, on very short pedunc., shoots pinnate, leaves nearly circular, concave. Hypnum *Smithii*. Dicks. With. See Hypnum. *Smithii.*

—— On trunks of trees. —— *Dicks.* 5. 4.

Obs. 1. In habit it is very like the Hypnums.

Obs. 2. Mr. Menzies having, in the paper before referred to, made the double calyptre a part of the essential char. of Polytrichum, has consequently excluded P. *hercynicum*, and the other species with erect hairs. But I am of opinion that the *Villous Calyptre* taken singly forms a sufficient generic character, and that all the species with such calyptres, which are by no means numerous, may very conveniently be arranged under the genus Polytrichum.

1193. MNIUM. *Capsule* lidded. *Calyptre* even. Male. A naked head, powdery, remote.

1. M. Stem simple, leaves ovate. *pellucidum.*
   Bryum *diaphanum*. Weber.
2. M. Stem branched, androgynous. *androgynum.*
   B. *androgynum*. With.
3. M. Stem erect, branched, male pedunc. axillary. See B. *palustre*. *ramosum.*
4. M. Stem simple, inflected at the joints. *fontanum.*
   B. *fontanum*. Huds. Smith.
5. M. Stem dichotomous, leaves subulate. *palustre.*
   B. *palustre*. Neckar, Weber, &c.
6. M. Stemless, capsule nodding, calyptre reflected, 4-cornered. *hygrometricum.*
   B. *hygrometricum*. F. Suec. Huds.
7. M. Stem dichotomous, axils peduncle-bearing, caps. erect, leaves keeled. *purpureum.*
   B. *purpureum*. F. Suec. Huds. Lightf.

seta'ceum. 8. M. Caps. erect, lids filiform, as long as the capsules. See B. *convolutum.*

cirra'tum. 9. M. Leaves revolute when dried. B. *cirratum.* Huds.

anno'tinum. 10. M. Leaves ovate, acuminate, pellucid, pedunc. from near the root, caps. nodding. B. *annotinum.* Huds.

hor'num. 11. M. Caps. pendulous, pedunc. curved, shoot simple, leaflets rough at the margin. B. *hornum.* Huds. Curt.

capilla're. 12. M. Caps. pendulous, leaves ovate, bristle-bearing, keeled, pedunc. very long. B. *capillare.* Sp. pl. Huds.

cru'dum. 13. M. Caps. pendulous, calyptre recurved, leaves pellucid. Bryum *crudum.* Fl. Suec. Huds.

pyrifor'me. 14. M. Caps. pendulous, turbinate, stipe filiform, male flowers bristle-bearing. Bryum *aureum.* Huds. Smith.

serpyllifo'lium. 15. M. Peduncles aggregate, leaves spreading, pellucid. B. *serpyllifolium.* Huds.

punctatum. α. M. Pedunc. aggregate, leaves obovate, very entire, obtuse, dotted. Bryum *serpyllifolium* α. Huds.

cuspidatum. β. M. Pedunc. aggregate, leaves alternate, acute, serrated. B. *serpyllifolium* γ. Huds.

proliferum. γ. M. Pedunc. aggregate, leaves collected so as to form roses, lanceolate, acute. Bryum *serpyllifolium* δ. Huds.

undulatum. δ. M. Peduncles aggregate. leaves oblong, undulated, Bryum *serpyllifolium* ζ. Huds.

tri'quetrum. 16. M. Leaves 3-rowed, patulous, subulato-lanceolate, keeled. See B. *triquetrum.*

Obs. For the above sixteen species see Bryum *triquetrum*, &c.

polyt'richoi'des. 17. M. Calyptre villous. Polytrichum *subrotundum*, and *nanum.* Huds. With. &c. See Polytrichum.

Trichom'anis. 18. M. Leaves 2-rowed, very entire. Jungermannia *scalaris* With. J. *trichomanes* Lightf.

fis'sum. 19. M. Leaves two-rowed, bifid. Jungermannia *fissa.* Lightf. J. *Sphærocephala* With.

Jungerman'nia. 20. M. Leaves 2-rowed, pinnæ appendaged underneath. Jungermannia *purpurea.* Lightf. See Jung. *purpurea*, &c.

Obs. 1. The present character of Mnium not being sufficiently determinate to admit of any species being referred to it with a proper degree of certainty, and the frequent removal of the species of Mnium to Bryum, and v. v., having occasioned much confusion and perplexity, I have thought it better to transfer for the present all the species ranked by

Linnæus as Mniums, to the other genera. Weber has gone so far as to entirely omit the genus Mnium, but I have judged it proper for the convenience of those who are in the habit of considering certain species as Mniums, to retain the whole of the species enumerated by Lin. together with their characters, and to give a reference to Bryum, Polytrichum, &c. for a further description of them.

Obs. 2. Dr. Withering has given 24 species of Mnium, 13 of which are taken from the species or varieties of Mnium of Lin. viz. *pellucidum*, *fontanum*, *palustre*, *hygrometricum*, *purpureum*, *annotinum*, *hornum*, *capillare*, *crudum*, *punctatum*, *cuspidatum*, *proliferum*, *undulatum*; Nine are taken from the genus Bryum of Lin. &c. viz. *aciculare*, *scoparium*, *uliginosum* (B. trichodes Lin.), *simplex*, *heteromallum*, *glaucum*, *pellucens*, (B. pellucidum Lin.) *caespiticium*, *nutans* (B. triquetrum γ. Huds.), *pseudo-triquetrum* (ventricosum Dicks.); and one is a new species of Mnium from Dickson, viz. M. *arcuatum*.

1189. PHAS'CUM. *Caps.* lidded, mouth ciliate. *Calyptre* minute. (*Caps.* ovate, without a lid, sometimes with the rudiment of a permanent one. *Calyptre* minute, deciduous.)

1. *Capsules sessile.*

1. P. Stemless, leaves ovate, acute. (Caps. minute, ovate, afterwards rounder. Leaves converging, concave, nerveless, ending in a short hair. DILL.) *acaulon.*

Earth-moss. Ditch-banks. A. 3. 4. *Dill.* 32. 11.

2. P. Stemless, leaves ovate, concave, converging, not ending in hairs. WITH. (Leaves smaller than the preceding, yellowish-green, caps. smaller, rounder. See Dill. P. 252.) Ph. *acaulon* β. Lin. Huds. *multicum.*

—— Garden-walks, &c. A. 1. 2. *Dill.* 32. 12.

3. P. Stemless (stem short), leaves subulato-setaceous, patulous. *subulatum.*

Awl-leaved E. Ditch-b. A. 3—8. *Curt. Dill.* 32. 10.

4. P. Caulescent, creeping, caps. lateral (extremely minute; leaves small, short, broadish at the base, pointed. DILL. p. 550.) *repens.*

—— Trunks of trees. P. 5. *Dill.* 85. 16.

5. P. Shoots filamentous, jointed, branched, leaflets of the perichætium longer than the caps., lanceolate, serrated. (Caps. ovate, acuminate, at the sides of the shoots near the base.) DICKS. *serratum.*

Obs. It is exceedingly minute, at first sight resembling a filamentous Byssus, and would scarcely be noticed if it did

not grow in tufts. It seems to be a link connecting the Musci and Algæ, partaking of Phascum and Conferva. See Dicks. i. p. 1.

— Muswell Hill, near Highgate. — 4. *Dicks.* i. 1.

stolonif'erum. 9. P. Shoots filamentous, jointed, branched, leaflets of the perichætium lanceolate, toothed (rather larger than Ph. *serratum*, leaves obtusely toothed, reticulated.) Dicks.

—— On clay near Walthamstow. *Dicks.* 17. 2.

alter'nifo'lium. 10. P. Capsule-bearing stems short ($\frac{1}{8}$ inch high), barren stems taller ($\frac{1}{2}$ inch high or more), erect, leaves alternate, subulate. (Caps. single, obovate, buried in the leaves, which are twice as long as it.) Dicks.

Alternate-leaved Earth-moss. Bogs. — 4. *Dick.* 1, 2.

2. *Capsules peduncled.*

curvicoll'lum. 11. P. Stemless, caps. on curved peduncles, leaves lanceolate, acuminate, patulous. Hedw. Dicks. &c.

— Barren grassy pl. near Croydon. — 5. *E.B.* 330.

pilif'erum. 12. P. Caulescent, leaves oblong, erect, hair-pointed. Schr. Dicks. With.

—— Barren grassy places. — *Sch. phasc.* i. 6. 7. 10.

nit'idum. 13. P. Caulescent, caps. (axillary, or terminating, cernuous) not taller than the leaves, leaves subulate, keeled, somewhat fascicled. With. P. *axillare* Dicks.

Shining Earth-moss. Bogs. — 9. *Dicks.* i. 3.

Obs. The whole plant is only about $\frac{1}{8}$ inch high. Dicks.

rec'tum. 14. P. Stemless, peduncle thrice the length of the leaves, leaves lanceolate, mid-ribbed, fine-pointed. With.

—— Near Garn-house, Wales. Griff. *With.* 18. 1.

1194. Bry'um. *Caps.* lidded. *Calyptre* smooth. *Peduncle* arising from a terminating tubercle. (*Caps.* lidded. *Calyptre* smooth. *Peduncle* often arising from a naked tubercle, not from a *Perichætium.*)

Synopsis of the Subdivisions.

1. *Capsules sessile.*
2. *Peduncles lateral.*

A. Capsules erect, or slightly inclined.

B. Capsules nodding.

3. *Peduncles from the forks of the shoots, or from the base of the plant.*

A. Capsules erect, or slightly inclined.

B. Capsules nodding.

4. *Peduncles terminating, capsules erect.*

A. Stem none, or very short, and seldom branched.

B. Stem procumbent.

C. Stem erect.

5. *Peduncles terminating, caps. inclined or oblique.*

6. *Peduncles terminating, capsules nodding.*

A. Stem none, or very short, and rarely branched.

B. Stems erect, or branched.

1. *Capsules sessile.*

1. B. Caps. sessile, terminal, calyptre very minute. See Fontinalis *apocarpa.* *apocar'pum.*

2. B. Caps. sessile, scattered, calyptres striated, or hairy upwards. See Polytrichum *striatum.* *stria'tum.*

2. *Peduncles lateral.*

A. Capsules erect, or slightly inclined. (scoparium.)

3. B. Caps. somewhat pyriform, ciliate, pedunc. very short (often flexuose), shoots nearly erect, branches spreading, nearly fastigiate. (Leaves lineari-lanceolate, acute, channelled.) Dicks. ii. 6. *pa'tens.*

—— Ben Nevis, Scotland. — *Dicks.* 4. 8.

Obs. In many species the old pedunc. and capsules, which were originally terminal, remain till they become lateral in consequence of new shoots pushing forth from the ends of the old ones; but this division is intended to comprehend only such as have their new pedunc. and caps. arising laterally.

4. B. Caps. semi-globular, (mouth) naked, leaves linear, stellato-verticillate. (Beak of the lid rather oblique.) Dicks. ii. 3. *stellig'erum.*

—— Woods in the Highl. of Scot. *Dicks.* 4. 4.

latera'le. 5. B. Caps. oval, leaves setaceous, 1-rowed. Huds. Lightf.
— Mount. woods. P. 5—9. *Hedw.* ii. 40. *Hal. h.* 46. 8.

æsti'vum. 6. B. Caps. roundish, leaves subulate, distant (without a mid-rib, doubled together). With.
—— Marshy places. —— *Dill.* 47. 36.

barba'tum. 7. B. Caps. oblong, slender, lid acuminate, oblique, leaves lanceolate, acute, the lowest erect, upper ones spreading. Curt. With.
—— Walls. P. 12—2. *Curt.* 274. *Dill.* 48. 48.

imber'be. 8. B. Caps. dilated at the mouth, leaves keeled. (Caps. oblong, beardless, leaves lanceolate, keeled, spreading. Huds.)
—— Sandy heaths, &c. A. 3. 4. *Dill.* 48. 46.

flaves'cens. 9. B. Caps. cylindrical, ciliate, shoots mostly simple, leaves lanceolato-linear, keeled. Dicks. ii. 4.
—— Bogs in the Highlands. — *Dicks.* 4. 5.

purpu're-um. 10. B. Caps. ovate, rather erect, stem bifid, leaves lanceolate (oblong), acute, keeled. Huds. Mn. *purpureum* Lin. With. Dicranum *purpureum* Hedw.
—— Walls, heaths, &c. A. 3. 4. *Dill.* 49. 51.
Var. 2. γ. Huds. V. 2. With. Leaves longer, terminating in capillary points, pedunc. longer, arising several together. Dill. 387.
—— Emott Moor. — 6. *Dill.* 49. 52.

B. Capsules nodding.

sim'plex. 11. B. Caps. oblong, leaves subulate, shoot very simple, pedunc. from the middle of the shoot. Mn. *simplex* With. Dicranum *varium* Hedw.
—— Grassy sandy pl. 3—5. *Hedw.* ii. 34. *Dill.* 50. 59.

alpi'num. 12. B. Caps. oblong, leaves ovate, acuminate, keeled, shoots branched.
—— Rocks. P. 4—6. *Dill.* 50. 64.

3. *Peduncles from the forks of the shoots, or from the base of the plant.*

A. Caps. erect, or slightly inclined.

convolu'-tum. 13. B. Caps. oblong, (mouth) bearded, leaves lanceolate, perichætium cylindrical. Dicks. ii. 6. With. Barbula *convoluta* Hedw. (Lids filiform, as long as the capsules. B. *setaceum* Huds. Lightf.) Not Mn. *setaceum* Lin. See Dicks.
—— Walls, &c. A. 3. *Hedw.* i. 32. *Dill.* 48. 44.

14. B. (Caps. cylindrical, sometimes terminating, lid subulate.) Leaves setaceous, beardless, twisted when dry. *tortuo'sum.*
—— Heaths, &c. P. 8—11. *Dill.* 48. 40.

15. B. Caps. ovato-oblong, inclined, lid conical, stem dichotomous leaves subulate. NECKAR. WEBER. SMITH. *palus'tre.*
—— Moist heaths. P. 6. 7. *E. B.* 391. *Dill.* 31. 3.
Var. 2. β. *ramosum* Hud. V. 2. With. Stem branched, erect, pedunc, axillary, with powdery globular heads—The male plant? Mn. *ramosum* Lin. syst. *Dill.* 31. 4.

16. B. Caps. oblique, roundish, stem simple, inflected at the joints. HUDS. (Stem branched, leaves ovate, acute, rather remote, entire, pedunc. from the divarication of the branches. SMITH.) Mn. *fontanum* Lin. With. *fonta'num.*
—— Boggy pl. P. 5—8. *E. Bot.* 390. *Dill.* 44. 2.

17. B. Caps. pyriform, with (inflected) teeth, leaves ovate, serrated (above), reticulated. (Pedunc. from the base of the plant.) Dicks. ii. 4. *reticula'tum.*
—— Ben High. —— *Dicks.* 4. 6.

B. Capsules nodding.

18. B. Caps. turbinate, lid short, obtuse, leaves ovate, acute, keeled, shoots branched, B. *triquetrum* γ. Huds. Mn. *nutans* With. Mn. *turbinatum* Hedw. *nu'tans.*
—— Marshy places. —3—9. *Dill.* 51. 74.

19. B. Caps. globular, (mouth) denticulated, shoots branched, leaves oblongo-lanceolate, acuminate (erecto-patulous), striated. Mnium *arcuatum.* Dicks. iii. 2. With. *arcua'tum.*
—— Bogs, &c. — 11. *Dicks.* 7. 3. *Dill.* 39. 36.
Obs. It is described by Dickson under the name of Hypnum *chrysocomum* Fasc. ii., and there is some ground for considering it as a Hypnum from the peduncles having a short perichætium.

20. B. Caps. (obovate) leaves ovate, bristle-bearing, keeled, pedunc. very long. LIN. sp. Huds. Mn. *capillare* Syst. Veg. With. Hypnum *capillare* Weis. *capilla're.*
—— Heaths, &c. P. 2—5. *Dill.* 50. 67.

21. B. Caps. oblong, pedunc. almost radical, leaves ovate, acuminate, pellucid. HUDS. Mn. *annotinum* Lin. With. *anno'tinum.*
—— Woods, &c. P. 3. 4. *Dill.* 50. 68.

cæspitic'ium. 22. B. Caps. (oval) leaves lanceolate, acuminato-setaceous, pedunc. very long. (Shoots short, but branched. WITH.) Mn. *cæspititium* With. Hypnum *cæspiticium* Weis.

—— Walls, &c. P. 2—4. *Curt.* 166. *Dill.* 50. 66.

Obs. Hudson considers B. *capillare* as too nearly allied to this species, but the former is a larger plant, its leaves are broader and not shining, its pedunc. purple, and the lid of the caps. acuminate, almost awned. See Weis. P. 206.

tri'quetrum. 23. B. Caps. oblong (ventricose) leaves 3-rowed, patulous, subulato-lanceolate, keeled, shoots branched. HUDS. B. *ventricosum* Dicks. i. 4. Mn. *pseudo-triquetrum* With. Not Mn. *triquetrum* Lin. See Dicks.

—— Marshy places. P. 4. 5. *Dill.* 51. 72.

Var. 2. β. Huds. V. 2. With. Pedunc. and caps. longer, leaves lanceolate, pellucid, shining. DILL. P. 405. *Tab.* 51. 73.

argen'teum. 24. B. (Caps. oval, lid short, obtuse,) shoots cylindrical, imbricated, smooth. (Leaves oval, acute, terminated by a hair. CURTIS.)

—— Walls, &c. P. 10. 2. *Curt. Dill.* 50. 62.

Var. 2. β. Lin. Huds. V. 2. With. Shoots not silvery, leaves not hair-bearing. *Dill.* 50. 63.

Zie'rii. 25. B. Caps. club-shaped, elongated, shoots cylindrical, root-leaves spreading, (three times) longer. (Pedunc. from the base of the plant, stem-leaves ovate, acute, root-leaves lanceolato-linear.) DICKS. ii. 8.

—— Moist banks in the Highl, — *Dicks.* 4. 10.

4. *Peduncles terminating, caps. erect.*

A. Stem none, or very short.

cuneifo'lium. 26. B. Caps. cylindrical, (peristome) denticulated, leaves cuneiformi-ovate, pellucid, reticulated. DICKS. iii. 7. B. *murale* β. Huds.

—— Banks of earth, Oxford, &c. *Dill.* 45. 15.

mura'le. 27. B. Leaves (ovate, acute) straightish, hair-bearing, shoots simple, cespitose (very short, subdivided, caps. oblong, lids conical, acute. WITH.)

—— Walls, &c. P. 11—3. *Dill.* 45. 14.

obtu'sum. 28. B. Caps. obovate, truncated, lid convex, leaves lanceolato-ovate, acuminate. DICKS. ii. 5.

—— Stones on Ben Crechan. *Dicks.* 4. 7. a. b.

ova'tum. 29. B. Caps. ovate, leaves ovate, concave, hair-bearing. DICKS. ii. 4. Gymnostomum *ovatum* Hed.

—— Pastures, &c. — 4. 5. *Hedw. Stirp.* i. 6.

30. B. Caps. oblong, ciliate, leaves concave, ovato-subulate. Dicks. ii. 6. Trichostomum *pusillum*. Hedw. *pusil'lum.*
—— Sandy places. A. 2—3. *Hedw.* i. 28.

31. B. Caps. obovate, calyptre subulate, shoots stemless; leaves ovate, awnless, (flat, oblong, acute. With.) *pyrifor'me.*
—— Heaths, &c. A. 2—4. *Dill.* 44. 6.

32. B. Caps. acute, bearded, leaves ovato-lanceolate, acute, somewhat involute. Dicks. ii. 6. *stella'tum.*
—— Banks of rivulets, in Scotland. *Dill.* 49. 56.

33. B. Caps. obconical, toothed, (lid with a curved beak) leaves erect, cylindrical, rather obtuse. Dicks. ii. 3. *calca'reum.*
— Limestone rocks. — 5. *E. Bot.* 191. *Dicks.* 4. 3.

34. B. Caps. ovate, somewhat oblique, denticulate, leaves capillary. Dicks. iii. 7. Dicranum *cerviculatum*. Hedw. *cervicula'tum.*
—— On Hampstead heath. — *Hedw.* iii. 37. A.

35. B. Leaves setaceous, caps. very obtuse, (mouth) patulous. *paludo'sum.*
—— Roots of trees, &c. A. 3—5. *Dill.* 49. 53.

36. B. Caps. cylindrical, leaves spreading, linear, convex (on the under side), rigid. Huds. (Veil longer than the caps., leaves lanceolate, involute. E. Bot.) Barbula *rigida*. Hedw. *rig'idum.*
—— Rocks. P. 11—7. *E. Bot.* 180. *Dill.* 49. 53.

37. B. Caps. oblong, lid acuminate, calyptre (somewhat curved) reaching half-way round, leaves (3 or 4) lineari-lanceolate. With. Br. *viridulum*. Dicks. Not Lin.? See Dicks. i. 3. and With. 2. 814. Weissia *controversa*. Hed. *paucifo'lium.*
—— Boggy ground. — 6— *Dicks.* i. 5.

38. B. Caps. oblong, lid obliquely beaked, leaves spatulate, acuminate, denticulate. Dicks. ii. 4. Gymnostomum *Heimii*. Hedw. *Hei'mii.*
—— Sandy places. P. 2—6. *Hedw.* i. 30.

39. B. Caps. (oblongo-ovate) denticulate, peduncles ascending, shoots nearly stemless, leaves ovate. Dicks. iii. 4. *Forste'ri.*
—— On trunks of trees. Forst. jun. *Dicks.* 7. 8.

40. B. Caps. roundish-pyriform, lanceolate, (peristome) naked, shoots leafless below, leaves fascicled, ovato-lanceolate, acuminate. Dicks. iii. 8. *fasciula're.*
—— Barren sandy pl. P. — *Dicks.* iii. 7. 5.

cæspitici'-um. 22. B. Caps. (oval) leaves lanceolate, acuminato-setaceous, pedunc. very long. (Shoots short, but branched. WITH.) Mn. *cæspiticium* With. Hypnum *cæspiticium* Weis.

—— Walls, &c. P. 2—4. *Curt.* 166. *Dill.* 50. 66.

Obs. Hudson considers B. *capillare* as too nearly allied to this species, but the former is a larger plant, its leaves are broader and not shining, its pedunc. purple, and the lid of the caps. acuminate, almost awned. See Weis. P. 206.

tri'que-trum. 23. B. Caps. oblong (ventricose) leaves 3-rowed, patulous, subulato-lanceolate, keeled, shoots branched. HUDS. B. *ventricosum* Dicks. i. 4. Mn. *pseudo-triquetrum* With. Not Mn. *triquetrum* Lin. See Dicks.

—— Marshy places. P. 4. 5. *Dill.* 51. 72.

Var. 2. β. Huds. V. 2. With. Pedunc. and caps. longer, leaves lanceolate, pellucid, shining. DILL. P. 405. *Tab.* 51. 73.

argen'te-um. 24. B. (Caps. oval, lid short, obtuse,) shoots cylindrical, imbricated, smooth. (Leaves oval, acute, terminated by a hair. CURTIS.)

—— Walls, &c. P. 10. 2. *Curt. Dill.* 50. 62.

Var. 2. β. Lin. Huds. V. 2. With. Shoots not silvery, leaves not hair-bearing. *Dill.* 50. 63.

Zie'rii. 25. B. Caps. club-shaped, elongated, shoots cylindrical, root-leaves spreading, (three times) longer. (Pedunc. from the base of the plant, stem-leaves ovate, acute, root-leaves lanceolato-linear.) DICKS. ii. 8.

—— Moist banks in the Highl, — *Dicks.* 4. 10.

4. *Peduncles terminating, caps. erect.*

A. Stem none, or very short.

cuneifo'-lium. 26. B. Caps. cylindrical, (peristome) denticulated, leaves cuneiformi-ovate, pellucid, reticulated. DICKS. iii. 7. B. *murale* β. Huds.

—— Banks of earth, Oxford, &c. *Dill.* 45. 15.

mura'le. 27. B. Leaves (ovate, acute) straightish, hair-bearing, shoots simple, cespitose (very short, subdivided, caps. oblong, lids conical, acute. WITH.)

—— Walls, &c. P. 11—3. *Dill.* 45. 14.

obtu'sum. 28. B. Caps. obovate, truncated, lid convex, leaves lanceolato-ovate, acuminate. DICKS. ii. 5.

—— Stones on Ben Crechan. *Dicks.* 4. 7. a. b.

ova'tum. 29. B. Caps. ovate, leaves ovate, concave, hair-bearing. DICKS. ii. 4. Gymnostomum *ovatum* Hed.

—— Pastures, &c. — 4. 5. *Hedw. Stirp.* i. 6.

30. B. Caps. oblong, ciliate, leaves concave, ovato-subulate. Dicks. ii. 6. Trichostomum *pusillum*. Hedw. *pusil'lum.*
—— Sandy places. A. 2—3. *Hedw.* i. 28.

31. B. Caps. obovate, calyptre subulate, shoots stemless; leaves ovate, awnless, (flat, oblong, acute. With.) *pyrifor'me.*
—— Heaths, &c. A. 2—4. *Dill.* 44. 6.

32. B. Caps. acute, bearded, leaves ovato lanceolate, acute, somewhat involute. Dicks. ii. 6. *stella'tum.*
—— Banks of rivulets, in Scotland. *Dill.* 49. 56.

33. B. Caps. obconical, toothed, (lid with a curved beak) leaves erect, cylindrical, rather obtuse. Dicks. ii. 3. *calca'reum.*
— Limestone rocks. — 5. *E. Bot.* 191. *Dicks.* 4. 3.

34. B. Caps. ovate, somewhat oblique, denticulate, leaves capillary. Dicks. iii. 7. Dicranum *cerviculatum*. Hedw. *cervicula'tum.*
—— On Hampstead heath. — *Hedw.* iii. 37. A.

35. B. Leaves setaceous, caps. very obtuse, (mouth) patulous. *paludo'sum.*
—— Roots of trees, &c. A. 3—5. *Dill.* 49. 53.

36. B. Caps. cylindrical, leaves spreading, linear, convex (on the under side), rigid. Huds. (Veil longer than the caps., leaves lanceolate, involute. E. Bot.) Barbula *rigida*. Hedw. *rigi'dum.*
—— Rocks. P. 11—7. *E. Bot.* 180. *Dill.* 49. 53.

37. B. Caps. oblong, lid acuminate, calyptre (somewhat curved) reaching half-way round, leaves (3 or 4) lineari-lanceolate. With. Br. *viridulum*. Dicks. Not Lin.? See Dicks. i. 3. and With. 2. 814. Weissia *controversa*. Hed. *paucifo'lium.*
—— Boggy ground. P. 6— *Dicks.* i. 5.

38. B. Caps. oblong, lid obliquely beaked, leaves spatulate, acuminate, denticulate. Dicks. ii. 4. Gymnostomum *Heimii*. Hedw. *Hei'mii.*
—— Sandy places. P. 2—6. *Hedw.* i. 30.

39. B. Caps. (oblongo-ovate) denticulate, peduncles ascending, shoots nearly stemless, leaves ovate. Dicks. iii. 4. *Forste'ri.*
—— On trunks of trees. Forst. jun. *Dicks.* 7. 8.

40. B. Caps. roundish-pyriform, lanceolate, (peristome) naked, shoots leafless below, leaves fascicled, ovato-lanceolate, acuminate. Dicks. iii. 8. *fasciculare.*
—— Barren sandy pl. P. — *Dicks.* iii. 7. 5.

flexifo'lium. 41. B. Caps. ovato-cylindrical, (peristome) membranaceo-ciliate, shoots nearly stemless, leaves flexuose, lanceolate, serrated. DICKS. iii. 5.
—— Barren sloping gr. near Croydon. *Dicks.* 7. 9.

dealba'tum. 42. B. Caps. roundish, somewhat incurved, dentate-ciliate, leaves lanceolate, acute, spreading. DICK. ii. 8.
—— Ben Lawers. — *Dicks.* 5. 3.

extinctori'um. 43. B. Caps. oblong, smaller, calyptres lax, equal. (Caps. cylindrical, entirely covered by the campanulate calyptres, shoots simple, leaves lanceolate. WITH.)
—— Dry heaths, &c. P. 10—8. *Dill.* 45. 8.
Var. 2. β. Lin. Huds. Calyptre cut at the base. WITH.
—— Rocks. P. 3—7. *Dill.* 45. 9.

mucronula'tum. 44. B. Caps. oblong, bearded, shoots erect, but little branched, leaves lanceolate, keeled, mucronate, patulous. DICKS. iii. 3. Barbula *unguiculata.* Hedw.
—— Sandy commons. P. 3. 4. *Hedw.* i. 23.
Obs. Dickson considers this as specifically distinct from B. *unguiculatum* Huds. and therefore excludes the synonyms given by Hedwig. Withering on the contrary says if they be distinct, Dickson's char. applies better to the plant of Dillenius, and Hudson's to that of Hedwig. See B. *unguiculatum.*

virid'ulum. 45. B. Caps. ovate, leaves lanceolate, acuminate, imbricato-patulous. B. *virens.* Dicks.
—— Boggy ground. — 6. *Curt.* 132. 1. *Dill.* 48. 43.

truncat'ulum. 46. B. Caps. roundish, lid mucronate. (Caps. truncated, leaves flat, mucronate. WITH.)
—— Ditch-banks. A. 9—2. *Curt.* 132. *Dill.* 45. 7.

rufes'cens. 47. B. Caps. ovate, toothed, lid turbinate, rather recurved, leaves 1-rowed, linear, pellucid, flaccid. DICKS. iii. 6.
—— Banks of muddy rivulets. — *Dicks.* 8. 1.

callisto'mum. 48. B. Caps. ovato-urceolate, toothed (teeth half as long as the capsule) shoots nearly stemless, leaves erect, lineari-subulate. DICKS. iii. 5.
—— Barren rocks, Highl. —— *Dicks.* 7. 10.

pal'lidum. 49. B. Caps. ovato-cylindrical, leaves subulate. WITH.
—— Peat holes, in Denbighs. GRIF. — *Dill.* 49. 57.

B. Stem procumbent.

hypnoi'des. 50. B. Caps. erect (ovate), shoots straightish (ascending), branches lateral, short, fertile.

Var. 1. *lanuginosum.* α. Lin. ζ. Huds. Shoot branched, decumbent, leaves oblong, hair-pointed, caps. oblong, veils entire. With. Var. 1. Trichostomum *lanuginosum.* Hedw.

—— Hills. — Autumn. *Dill.* 47. 32.

—— 2. β. Lin. Huds. Leaves fascicled, thinly set, lanceolato-subulate, mid-ribbed, doubled together, ending in a short whitish hair, curled when dry. With. Var. 2.

—— Snowdon. — *Dill.* 47. 28. A. B.

—— 3. Leaves fascicled, ovato-subulate, mid-ribbed, keeled, pointed with a white hair. With. V. 3.

—— 4. Leaves fascicled, lanceolato-subulate, mid-ribbed, doubled together, hair-pointed, curled when dry. With. Var. 4.

—— 5. Leaves fascicled, lanceolato-subulate, mid-ribbed, not hair-pointed, peduncles very short. With. Var. 5.

—— 6. δ. Huds. Leaves fascicled, lanceolato-subulate, mid-ribbed, doubled together, curled when dry (not hair-pointed), lid not beaked.

—— Snowdon. — 8. *Dill.* 47. 30.

—— 7. Shoots long, procumbent, leaves 1-rowed, fascicled or distinct, subulate, curved, very slender, but not hair-pointed. With. Var. 7. See V. iii. P. 820.

C. Stems erect.

51. B. Caps. very small, roundish, shoot simple, erect, pinnatifid; leaves 2-rowed, lanceolate, very entire. With. Mnium *Osmundaceum.* Dicks. Gymnostum *pennatum.* Hedw. *penna'tum.*

—— Old hedge-banks. B. 4—6. *Dicks.* i. 4.

Obs. The stems or fronds are about ½ inch long, and of two kinds, barren and fertile. The *barren* ones are pinnatifid, the lobes nerveless, and united at the base as in Osmunda *Spicant.* Lin. The *fertile* ones have distinct leaves, ovato-lanceolate, 2-rowed, some of them star-bearing, others capsule-bearing. See Dicks. i. 3.

52. B. (Caps. small,) peduncles crowded together (twisted) when dry, leaves hair-bearing, shoots fastigiate. *verticilla'tum.*

—— Rocks. P. 4—8. *Dill.* 47. 35.

53. B. Caps. spherical (lid flat, shoot branched, *pomifor'me.*

leaves lineari-lanceolate, imbricato-patulous, bristle-pointed. WITH.).

—— Rocks, &c. A. 2—4. *Dill.* 44. 1.

marocar'pon. 54. B. Caps. (very small) roundish, pedunc. terminating, shoot branched, leaves expanding, lanceolate, slender. WITH. B. *hypnoides* γ. Huds.

—— Snowdon. —— *Dill.* 47. 29. A. B. C.

acu'tum. 55. B. Caps. roundish (new ones terminal, old ones lateral), shoots branched, pointed, leaves setaceous, erect. WITH.

—— Snowdon, &c. — 8—6. *Dill.* 47. 34.

cirrha'tum. 56. Caps. ovate, leaves subulate, revolute when dry. HUDS. (Caps. ovato-oblong, lid acuminate, calyptre reaching but half-way, shoots branched, leaves lineari-lanceolate, mid-ribbed, acute. WITH.) Mn. *cirratum.* Lin. See page 250. A var. of Br. *viridulum.* GRIFF.

—— Mount. heaths, &c. P. 3—7. *F. Dan.* 538. 4.

lanceola'tum. 57. B. Caps. ovate, toothed, shoots nearly erect, leaves lanceolate, concave, acuminate. DICKS. iii. 4. Leersia *lanceolata.* Hedw.

— Hedge-b. near Croyd. P. Spr. & Aut. *Hed.* ii. 23.

linoi'des. 58. B. Caps. ovato-oblong, bearded, leaves distant, lanceolate, rather obtuse, mucronate. (Calyptre twice as long as the caps.) DICKS. iii. 8.

—— Pastures in Scotland. —— *Dicks.* 8. 3.

polyphyl'lum. 59. B. Caps. ovato-oblong, toothed, shoots very much branched, leaves crowded, lanceolate, curled when dry. WITH. Fissidens *polycarpon.* Hed. Br. *cirrhatum* β. Huds.

—— Snowdon. Autumn. *Hed.* ii. 31. *Dill.* 48. 41.

Obs. It grows in a thick tuft like B. *cirrhatum*, and is when dry so like it, that maceration is necessary to distinguish them; but its leaves and stem are slenderer, its pedunc. longer, and its caps. less numerous and paler. See Dill. P. 373.

canes'cens. 60. B. Caps. ovato-oblong, (pedunc. lateral) leaves crowded, lanceolate, reflected, white-haired at the ends. WITH. B. *hypnoides* β. Fl. Suec. Trichostomum *canescens.* Hedw.

—— High sandy places. P. 2. 3. *Dill.* 47. 27. D. E. F. Var. 2. Shoots simple or nearly so ($\frac{1}{2}$—1$\frac{1}{2}$ inch high). WITH. Var. 2. *Dill.* 47. 27. A. B. C.

—— 3. Leaves (not fascicled) lanceolato-subulate, mid-ribbed, shoots branched (erect, pedunc. short). WITH. Var. 3. Br. *hypnoides* γ. Huds.

—— Snowdon. —— 8. *Dill.* 47. 29.

61. B. Caps. ovato-oblong, with a fringed ring, (pedunc. lateral) leaves lineari-lanceolate, twisted when dry. Dicks. ii. 5. *ericeto'rum.*
—— Turfy heaths, in Scotl. — *Dill.* 45. 13.

62. B. Caps. ovato-cylindrical, ciliate, shoots branched, leaves linear, keeled, rather curled when dry (beak of the lid long, oblique). Dicks. iii. 4 Weisia *Dicksoni*, Willden. *Dickso'ni.*
—— Rotten wood, &c. — *Dicks.* 7. 7.

63. B. Caps. ovate, denticulate, shoots mostly simple, leaves lanceolato-subulate, spreading (3-rowed). Dicks. iii. 8. Swartzia *trifaria*. Hedw. *trifa'rium.*
—— Barren hills. P. — *Hedw.* ii. 28.

64. B. Caps. ovate, denticulate, shoots rather flexuose, leaves sheathing (mostly 1-rowed), capillary at the point. Dicks. iii. 8. Dicranum *crispum*. Hedw. *vagina'le.*
—— Bogs in Scotland. P. — *Hedw.* ii. 33.

65. B. Caps. ovato-oblong, with a ring, ciliate, leaves 1-rowed, lineari-sublate, rigid. Dicks. iii. 5. Weisia *heteromalla*. Hedw. *Wei'sia.*
—— Sandy places, &c. — 5—6. *Hedw.* i. 8.

66. B. Caps. obovate, toothed, apophysis roundish, leaves lineari-setaceous. Dicks. ii. 5. *splachnoi'des.*
—— Rocks on Ben Nevis, Scot. *F. Dan.* 538. 2.

67. B. Caps. ovate, peduncles short, leaves capillary, crowded, stiff and straight. Dicks. Gunn. *hyperbo're-um.*
—— Rocks on Ben Nevis. — *F. Dan.* 538. 1.

68. B. Caps. ovate, (peristome) naked, shoots branched, leaves capillary, rather recurved, interruptedly fascicled. Dicks. iii. 3. Gymnostomum *recurvirostrum*. Hedw. *fascicula'tum.*
—— Rocks on Highl. M. P. — *Hedw.* ii. 24.

69. B. (Capsules slender.) Lid needle-like, leaves (ovato-lanceolate) erect, mostly one-rowed. Mnium *aciculare*, With. Dicranum *aciculare*. Hedw. *acicula're.*
—— Rocks. P. 5—8. *Hedw.* iii. 33. *Dill.* 46. 25.
Var. 2. β. Huds. V. 2. With. Stems procumbent, leaves somewhat spreading, caps. dark-green, becoming blackish, pedunc. and calyptre black. See Dill. P. 367.

70. B. Caps. nearly cylindrical, somewhat erect, rather curved) pedunc. (lateral and terminal, solitary, or) heaped together, leaves 1-rowed, recurved, stem declining. Mn. *scoparium*. W. *scopa'rium.*
—— Heaths. P. 2—7. *E. Bot.* 354. *Dill.* 46. 16.

diaph'anum. 71. B. (Caps. cylindrical,) calyptre very long, stem mostly simple, leaves ovate, 4-rowed. WEBER. 190. Mnium *pellucidum*. Lin. &c. Tetraphis *pellucida*. Hedw.

—— Woods, &c. A. 1—7. *Dill.* 31. 2.

Var. 2. β. Huds. V. 2. With. Leaves very narrow and pellucid. DILL. in Ray 78. 5.

—— Heaths near Woolwich. — 3. *Dill.* 31. 2. E. F.

Obs. The powdery head, or globule, which Lin. makes a part of the char. of Mnium, is observed upon distinct individuals in this species.

androg'ynum. 72. B. Caps. oblong, nearly erect, lid acuminate, stem mostly branched, leaves lanceolate, patulous. WEBER.

—— Roots of trees, &c. A. 3. 4. *Dill.* 31. 1.

Obs. In habit it is very like B. *diaphanum*, but the shoots are smaller, the leaves shorter, narrower, and denser. The globular powdery heads are found upon the same plants, and have longer peduncles. See Weis. and Dill.

ten'ue. 73. B. Caps. cylindrical, bearded, (lid awned) shoots erect, leaves lanceolate, alternate. DICKS. iii. 8. WEBER. B. *purpureum* β. Huds.

—— Heaths. — 3. *Dill.* 48. 49.

curviros'trum. 74. B. Caps. oblong, denticulate, beak of the lid somewhat recurved, leaves lanceolate, patulous. DICKS. ii. 7. Weisia *recurvirostra*. Hedw. B. *recurvirostrum*. With.

— Dry places in woods. P. 8. *Hed.* i. 7. *Dill.* 48. 45.

unguicula'tum. 75. B. Caps. oblong, lid acuminate, oblique, leaves lineari-lanceolate, keeled. HUDS.

—— Sandy places, &c. A. 3. 4. *Dill.* 48. 47.

brevifo'lium. 76. B. Caps. oblong, attenuated, indistinctly ciliate, leaves crowded, linear, keeled. DICKS. ii. 4.

—— Bogs. —— *Dill.* 47. 39.

flagella're. 77. B. Caps. somewhat cylindrical, denticulate, shoots branched, somewhat flexuose, leaves subulate, channelled, 1-rowed. DICKS. iii. 6. Dicranum *flagellare*. Hedw.

—— Ben Nevis. P. — *Hedw.* iii. 1.

capilla'ceum. 78. B. Caps. oblong, leaves setaceous, patulous, decurrent. DICKS. i. 4. B. *æstivum*. Huds. Swartzia *capillacea*. Hedw.

—— Mount. marshes. — *Hedw.* ii. 26. *Dicks.* i. 6.

Obs. It is distinguished from B. *heteromallum* by the figure of the caps., and the leaves being patulous on both sides; from B. *flexuosum* by its slender stiff and straight peduncles, and the smallness of its capsules. DICKS.

Var. 2. Leaves more crowded, shorter, roughish; caps. much smaller. WITH.

Obs. It is distinguished in this diminutive state, which it assumes when growing on rocks by its jointed stem, which according to Mr. Griffith is a certain criterion of this species. See With. iii. P. 830.

5. *Peduncles terminating, caps. inclined, or oblique.*

79. B. Caps. erect, subulate, shoots stemless. (Caps. inclined, cylindrical, lid conical, acute, shoot very short, unbranched, leaves ovate, rather obtuse. WITH.) *subula'tum.*
— Moist banks. P. 1—5. *Curt.* 214. *Dill.* 45. 10.

80. B. Caps. somewhat obliquely erect, elongated at the base, (shoot erect, scarcely $\frac{1}{2}$ an inch high) leaves lineari-lanceolate. DICKS. ii. 8. Pohlia *elongata*. Hedw. *elonga'tum.*
— Woods near Loch Ness, Sc. — 5. *Hedw.* i. 36.

81. B. Caps. oblong, rather erect, peduncles very long, leaves setaceous, shoots stemless. *Cel'sii.*
—— Rocks on the Highl. m. DICKS. *Dill.* 49. 54.

82. B. Caps. erecto-cernuous, denticulate, shoots erect, short, leaves erect, capillary, rather rigid. DICKS. iii. 7. Dicranum *pusillum*. Hedw. *par'vulum.*
—— Pastures in Scotl. P. 8. *Hedw.* ii. 29. B.

83. B. Caps. somewhat erect, mouth ciliate, without a ring, pedunc. very long (stem short). (Caps. incurvo-pyriform, toothed, leaves lineari-lingulate, obtuse. DICKS. ii. 7. Mn. *uliginosum*. With. Meesia *uliginosa*. Hedw. *tricho'des.*
—— Moist mead. P. 5. 6. *Hedw.* i. 12. *Dill.* 49. 58.

84. B. Caps. (ovate), leaves setaceous, 1-rowed. (Beak of the lid curved, stem about $\frac{1}{2}$ an inch high.) Mn. *heteromallum*. With. Dicranum *heteromallum*. Hedw. *heteromal'lum.*
—— Heaths. A. 3—5. *Hedw.* i. 26. *Dill.* 47. 37.
Var. 2. β. Huds. V. 2. With. Leaves shorter, becoming suddenly narrower from the base, 2-rowed below, caps. more oblong. See Dill. P. 376.
—— Snowdon. — 8— *Dill.* 47. 38.

85. B. Caps. (oval) somewhat erect, lid arched, leaves erect, imbricated, shoots branched. (Lid acuminate, bent, leaves ovate, acute. WITH.) Mn. *glaucum*. With. *glau'cum.*
—— Mount. heaths. P. 8—11. *Dill.* 46. 20.

strumif'erum. 86. B. Caps. nearly erect, rather pyriform, toothed, apophysis incurved, leaves lanceolato-linear, generally 1-rowed. Dicks. iii. 8. Fissidens *strumifer*. Hedw.
—— Boggy mead. in Scotl. —— *Hedw.* ii. 32.

fal'lax. 87. B. Caps. oblong, (peristome) bearded, shoots somewhat branched, leaves lanceolato-linear, reflexo-patulous. Dicks. iii. 5. Barbula *fallax*. Hed.
—— Scotland and Yorkshire. —— *Hedw.* i. 24.
Obs. It differs from B. *imberbe*, which has lineari-subulate straight leaves, and a lid with a conical beak. Dicks.

crispa'tum. 88. B. Caps. (nearly) erect, (a little contracted in the middle) somewhat toothed, shoots branched, leaves linear, channelled, twisted. Dicks. iii. 3.
—— Bogs in Scotland, &c. —— *Dicks.* 7. 4.

pellu'cidum. 89. B. Caps. somewhat erect (oval), leaves recurved, acute, stem hirsute. Mn. *pellucens*. With.
—— Marshy places. P. 6—9. *Dill.* 46. 23. 24.

longifo'lium. 90. B. Caps. oblong, erect, denticulate, shoots elongated, rather inclined, somewhat branched, leaves capillary, 1-rowed. Dicks. iii. 7. Dicranum *longifolium*.
—— Banks of riv. in the Highl. P. — *Hedw.* iii. 9.

flexuo'sum. 91. B. Capsules erect (nearly, oblong, slender,) leaves setaceous, peduncles flexuose.
—— Rocks. P. 4—6. *Dill.* 47. 33. A. B. C. D. E.
Var. 2. Smaller and shorter. With. *Dill.* 47. 33. F. G.
—— 3. Very tall, not bearing capsules. With. *Dill.* 32. 3. See page 245.
Obs. Mr. Griffith is convinced that Sphagnum *alpinum* is only a variety of Bryum *flexuosum*. Its luxuriant growth in bogs he thinks accounts for the want of capsules. See With. V. 3. P. 834.

tetrago'num. 92. B. Caps. nearly erect, somewhat globular, shoots 4-cornered, the younger scandenti-flexuose, leaves appressed, lineari-subulate. Dicks. ii. 8.
—— Ben Lomond, Scotl. — *Dicks.* 4. 9.

Davie'sii. 93. B. Caps. ovate, (becoming) truncated, denticulate, (calyptre ventricose, lacerated at the base) shoots branched, leaves crowded, linear, curled when dry. Dicks. iii. 3.
—— Mount. of Wales. Davies. *Dicks.* 7. 6.

inclina'tum. 94. B. Caps. ovate, inclined, leaves setaceous, patulous, sheathing. Dicks. iii. 9. Swartzia *inclinata*. Hedw.
—— Turf bogs in Scotland. P. — *Hedw.* ii. 27.

95. B. Caps. (ovato-oblong) somewhat oblique, denticulate, shoots bifid, leaves lanceolate, acute, keeled, imbricato-patulous. DICKS. ii. 7. *bipartitum.*
—— Banks, &c. — 2. 3. *Dill.* 49. 50.

96. B. Caps. rather erect, leaves hair-bearing, recurved. (Caps. cylindrical, lids conical, acute, shoot branched, leaves reflected, obovate, obtuse, hair-pointed. WITH.) *ruralle.*
—— Thatched roofs, &c. P. 12—4. *Dill.* 45.12.

97. B. Caps. somewhat erect, (oblong,) peduncles mostly solitary, leaves lanceolate, keeled, undulated, spreading, serrated. *undulatum.*
—— Shady banks, &c. P.8—2. *Curt. Dill.* 46.18.

98. B. Caps. nearly erect, (rather oblique,) oblong, ciliate, shoots erect, simple, leaves lineari-lanceolate, imbricato-patulous. (Pedundle thicker above, slightly twisted,) DICKS. iii. 6. *linearre.*
—— Wet sandy banks in Scotl. — *Dicks.* 8. 2.

6. *Peduncles terminating, capsules nodding.*

A. Stem none, or very short, and rarely branched.

99. B. Caps. turbinate, calyptre 4-cornered, (oblique, angular,) leaves ovate, converging. HUDS. SMITH. Mn. *hygrometricum.* Lin. With. Koelreuteria *hygrometrica.* Hed. *hygrometricum.*
— Garden-walks. A. 3—5. *E.B.* 342. *Dill.* 52.75.

100. B. Caps. pendulous, nearly globular, leaves alternate, acute. *carneum.*
—— Moist places. P. 3—7. *Dill.* 50. 69.
Var. 2. β. Huds. V. 2. With. Caps. green, peduncles longer. DILL. in Ray 102. 52. *Dill.* 50. 69. G.

101. B. Caps. roundish, peduncles reflected, leaves setaceous. B. *recurvatum.* Dicks. With. Grimmia *recurvata.* Hedw. *setaceum.*
—— Calcareous rocks. — 3—9. *Hedw.* i. 38.

102. B. Caps. turbinate, leaves setaceous. HUDS. (Caps. pyriform, with a stricture in the middle. SMITH.) M. *pyriforme.* Lin. Webera *pyriformis.* Hedw. B. *mnioides.* With. *aureum.*
—— Rocks. P. 3—7. *E. Bot.* 389. *Dill.* 50. 60.

103. B. Caps. pendulous, oblong, leaves lanceolate, acute, keeled. HUDS. (Caps. cylindrical, lids conical, mucronate, shoot simple, leaves ovato- *sericeum.*

lanceolate, closing. WITH.) Webera *nutans.* Hedw.

—— Woolwich heath. P. 3—7. *Dill.* 50. 61.

B. Stems erect, or branched.

hor'num. 104. B. Caps. oblong (ovate), pedunc. curved, leaves lanceolate, serrulated. HUDS. Mn. *hornum.* Lin. With.

—— Shady situations. P. 2—5. *Dill.* 51. 71.

cru'dum. 105. B. Caps. pendulous, oblong, calyptre recurved, leaves ovate, acute, (ovato-lanceolate), pellucid, shoots very simple. HUDS. Mn. *crudum.* Lin. With.

—— Woods in Westmorel. P. 3—6. *Dill.* 51. 70.

puncta'tum. 106. B. Caps. oblong (oval), pedunc. aggregate, leaves obovate, very entire, obtuse, dotted. B. *serpyllifolium* α. punctatum Huds. Mn. *serpyllifolium* α. punctatum Lin. Mn. *punctatum.* With.

Var. 2. B. *serpyllifolium.* β. Huds. Leaf longer, more pellucid, caps. oblong, pointed. *Dill.* 53. 80.

cuspida'tum. 107. B. Caps. oblongo-ovate, pedunc. aggregate, leaves alternate, ovate, acute, serrated. B. *serpyllifolium* γ. cuspidatum Huds. Mn. *serpyllifolium* β. cuspidatum Lin. Mn. *cuspidatum.* With.

—— Woods, &c. P. 4. *Dill.* 53. 79.

prolif'erum. 108. B. Caps. oblong, pedunc. aggregate, leaves (ovato-) lanceolate, acute, heaped together so as to form terminating roses. (Shoots proliferous.) B. *serpyllifolium* δ. proliferum Huds. Mn. *serpyllifolium* γ. proliferum Lin. Mn. *proliferum* With.

—— Moist heaths, &c. Winter. *Dill.* 52. 77.

Var. 2. B. *serpyllifolium* ε. Huds. Var. 2. With. Caps. and pedunc. longer, leaves smaller, terminating in a longer hair. See Dill. P. 412. *Tab.* 52. 78.

undula'tum. 109. B. Caps. oblong, pedunc. aggregate, leaves oblong, (linear) undulated (serrulated.) B. *serpyllifolium* ζ. undulatum Huds. Mn. *serpyllifolium* δ. undulatum. Lin. Mn. *undulatum.* With.

—— Shady woods. P. 4. *Dill.* 52. 76.

nigra'tum. 110. B. Caps. ovate, denticulate, leaves lanceolate, acute, keeled, shoots fascicled. DICKS. iii. 9. Weisia *nigrata.* Hedw.

—— Boggy heaths in Scotl. P. — *Hedw.* iii. 39.

111. B. Caps. roundish, peduncles reflected, leaves (ovate) hair-bearing. (Calyptre minute, shoot branched. WITH.) *pulvina'tum.*
—— Walls, &c. — 3. 4. *Dill.* 50. 65.

112. B. Caps. club-shaped, oblong, shoots and peduncles inflected, leaves sagittate, (mid-ribbed) acute, marginate. DICKS. ii. 9. (The largest of the Bryums.) *cubita'le.*
—— Moist banks on Scotch m. — *Dicks.* 5. 2.

113. B. Caps. semi-ovate, lid rostrate, leaves ovato-lanceolate, acute, denticulate, marginate. DICKS. ii. 9. *margina'tum.*
—— Pastures in Scotland. *Dicks.* 5. 1.

1195. HYP'NUM. *Capsule* lidded. *Calyptre* smooth. *Peduncle* lateral, arising from a perichætium. (Peduncle from a lateral tubercle, invested with scales.)

SYNOPSIS of the DIVISIONS.

1. *Fronds pinnate.*
2. *Shoots scattered.*
3. *Shoots pinnate.*
4. *Leaves reflected.*
5. *Shoots shrub-like, or fascicled.*
6. *Shoots nearly cylindrical.*
7. *Shoots crowded.*

1. *Fronds pinnate.*

1. H. Frond very simple, pinnate, lanceolate, peduncle from the summit. (Caps. oblong, erect, lid acute.) *bryoi'des.*
—— Shady places. A. 2—5. *Dill.* 34. 1.

Obs. Although no perichætium is discoverable at the base of the peduncle in this species, it ought from its habit, which is very similar to that of H. *taxifolium* and *adiantoides*, to be considered as a Hypnum. DILL. 262.

2. H. Frond pinnate, simple, pinnæ (leaflets) in a double order, peduncles from the base. *denticula'tum.*
—— On trunks of trees. P. 3. 4. *Dill.* 34. 5.

3. H. Frond very simple, pinnate, lanceolate, pedunc. from the base. (Caps. nearly cylindrical, inclined, lid acuminate.) *taxifo'lium*
—— Woods, &c. — 2—5. *E. B.* 426. *Dill.* 34. 2.

asplenioi'des. 4. H. Frond pinnate, mostly simple, linear, pedunc. terminating, caps. somewhat incurved, toothed. (Beak of the lid oblique, leaflets lanceolate, obtuse.) DICKS. ii. 10. SWARTZ.
—— Bogs near Ben Lomond. — *Dicks.* 5. 5.

trichom'anoi'des. 5. H. Frond branched, leaves 2-rowed, imbricated, acinaciform, obtuse. (Branches obtuse, caps. oval.) SCHR. spic. WEBER. WITH. H. *complanatum* β. Huds.
—— Ditches in woods, &c. P. — *Dill.* 34. 8.

adiantoi'des. 6. H. Frond branched, pinnate, erect, pedunc. from the middle of the shoots. (Caps. nearly cylindrical, inclined, lid acuminate, leaflets acute.)
—— Bogs. P. 3. 4. *E. Bot.* 264. *Dill.* 34. 3.

sylvat'icum. 7. H. Frond branched, pinnate, procumbent, pedunc. from the middle, leaflets acute. (Lids of the caps. acuminate, leaflets acute.)
—— Roots of trees. P. 4. 5. *Dill.* 34. 6.

complana'tum. 8. H. Frond pinnate, branched, leaflets imbricated, acute, doubled together, compressed. (Branches attenuated, caps. ovate, inclined, alternate.)
—— Trunks of trees. P. 3. 4. *Dill.* 34. 7.

rotun'difo'lium. 9. H. Shoots creeping, branched, leaves oval, spreading, 2-rowed, caps. ovate, dentato-ciliate, cernuous. DICKS. ii. 2. SCOP. WITH.
—— Roots of trees. *Scop.* ii. p. 339. t. 62.

penna'tum. 10. H. Frond pinnate, branched, leaflets imbricated, acute, 2-rowed, compressed, undulated, perichætium as long as the peduncle. (Caps. cylindrical, nearly erect.) DICKS. i. 5.
—— Trunks of trees, in woods. — *Dicks.* 1. 8.

Obs. It differs from H. *complanatum* by its leaves being transversely undulated, and its pedunc. not being longer than the perich. and from Fontinalis *pennata* in the caps. being out of the perichætium.

2. *Shoots scattered* (rugosum.)

lu'cens. 11. H. Shoots branched, fronds somewhat pinnate, leaflets dotted (ovate); caps. ovate, inclined, or nodding.
—— Wet ditches, &c. P. 4—6. *Dill.* 34. 10.

stella'tum. 12. H. Shoots erect, leaves ovate, with long points, erecto-patulous, coloured. SCHR. (Caps. ovato-gibbous, rather incurved; distinguished from H. *cuspidatum* by the leaves on the summit of the shoots not being convolute. DICKS. i. 5.)
—— Turfy bogs. —— *Dicks.* i. 7. *Dill.* 39. 35.

13. H. Branches compressed, leaves lanceolate, hair-pointed, shining, caps. erect, lid conical. Dicks. iii. 3. *refus'cens.*
—— Wet rocks in the Highl. — *Dicks.* 8. 4.

14. H. Shoots branched, fronds almost bipinnate, leaves (lanceolate) undulated, flat (acuminate, embracing the stem with their two-horned base. Weber.). *cris'pum.*
—— Rocks, &c. P. 3. 4. *Dill.* 36. 12. ——

15. H. Shoots creeping, branched, leaves broad-lanceolate, acute, imbricato-patulous, caps. erect, cylindrical, ciliate. Dicks. ii. 12. *me'dium.*
—— Foot of trees in Scotl. — *Dill.* 42. 65. ——

16. H. Shoots crowded, erect, branches somewhat fascicled, linear, pedunc. elongated, caps. (ob-ovate) erect, rather oblique. Dicks. ii. 13. *pulchel'lum.*
—— Shady woods in Scotl. — *Dicks.* 5. 6.

17. H. Shoots creeping, branches scattered, cylindrical, leaves (oblong) patulous, acuminate. Caps. cylindrical, erect.) *viticulo'sum.*
— Trunks of trees. P. 3. 4. *E. B.* 265. *Dill.* 39. 43.

18. H. Shoots cylindrical, straightish, creeping, leaves ovato-lanceolate, caps. inclined, short, with a beaked lid. Neck. With. H. *rusciforme.* Weis. H. *rutabulum* δ. Huds. *ruscifo'lium.*
—— Rivulets. —— *Dill.* 38. 31.

19. H. Shoots scattered, procumbent, pedunc. lateral, leaves ovato-lanceolate, striated, caps. (cylindrical) inclined. With. H. *sericeum* γ. lutescens. Huds. *lutes'cens.*
—— Chalk hills, &c. P. 1—4. *Dill.* 42. 60.

20. H. Shoots branched, leaves lanceolate, striated, bristle-pointed, caps. cylindrical, deflected. Dicks. iii. 10. Scop. *cassu'bicum.*
—— On trees in shady situations. *Vaill.* 27. 1.

21. H. Shoots creeping, branched, (branches short) leaves lanceolate, acuminate, patulous, caps. urn-shaped, cernuous (beak recurved). Dicks. ii. 10. Schr. Fl. Lips. *intrica'tum.*
—— Woods near Matlock. —— *E. Bot.* 202.

22. H. Shoots branched, fronds somewhat bipinnate, leaves (lanceolate) undulated, folded. (Caps. oblong, inclined.) *undula'tum.*
—— Moist rocks, &c. P. 3. 4. *Dill.* 36. 11.

23. H. Shoots somewhat erect, slender, leaves lan- *al'bicans.*

ceolato-setaceous, appressed. (Caps. oval, oblique, inclined, lid short.) Dicks. ii. 6. Neck.

—— Sandy soil on heaths. — 5. *Dill.* 42. 63.

stria'tum. 24. H. Branches scattered, recurved, leaves ovate, streaked, acute, spreading in every direction, (caps. short, nodding) lid pointed. Schr. sp. With. H. *rutabulum* γ. Huds.

—— Trunks of trees. P. 1. *Dill.* 38. 30.

tri'quetrum. 25. H. Branches scattered, recurved, leaves ovate, recurved, patulous. (Caps. cylindrical, curved and inclined when mature.)

—— Roots of trees, &c. P. 9—1. *Dill.* 38. 28.

flu'itans. 26. H. Shoots scattered, leaves (triangular) lanceolate, alternate, remote. (Pedunc. slender, caps. hooked, very short, mouth ciliate.) Fl. Suec. ed. 2.

—— Ditches, &c. —— *Dill.* 38. 33.

Obs. In habit it is very like Fontinalis *minor*. Weis.

rutab'ulum. 27. H. Shoots scattered, somewhat creeping, leaves ovate, mucronate, imbricated. (Caps. curved, inclined, lids conical.)

—— Trunks of trees. P. 9—1. *F. D.* 824. *Dill.* 38. 33.

3. *Shoots pinnate.*

Smith'ii. 28. H. Shoots pinnate, branched on every side, leaves nearly circular, somewhat concave, caps. ovato-cylindrical, calyptre hairy upwards. Dicks. ii. 10. See Polytrichum *Smithii*. Page 249.

ni'tens. 29. H. Branches very short, leaves lanceolato-subulate, shining, striated. (Caps. ovate, inclined, lid short, conical.) Lin. F. Schr. &c.

—— Turf bogs in Scotland. — *Dill.* 39. 37.

prolix'um. 30. H. Shoots branched, elongated, rather naked below, pedunc. ascending, short, caps. ovate, ciliate (erect). Dicks. ii. 13.

—— Alpine rivulets in Scotl. — *Dill.* 38. 32.

plumo'sum. 31. H. Shoots pinnate, creeping, branches crowded, leaves imbricated, subulate. (Caps. ovato-oblong, erect.) Sp. Pl. H. *sericeum* β. Huds.

—— Trunks of trees, &c. — 1. 2. *Dill.* 35. 16.

prolif'erum. 32. H. Shoots proliferous, plano-pinnate, peduncles aggregate. (Perichætium setaceous, caps. curved, inclining).

—— Heaths, &c. P. 12—2. *Curt. Dill.* 35. 14.

33. H. Shoots plano-pinnate, pedunc. aggregate (perichætium scaly, caps. cylindrical, straight, inclined.) *parietinum.*
—— Heaths, &c. — *Dill.* 35. 13.

34. H. Shoots pinnate, branchlets distant, leaves imbricated, incurved, acute, 1-rowed. (Caps. nearly cylindrical, inclined, lid conical.) *filicinum.*
—— Marshy places. P. 3—8. *Dill.* 36. 19.
Var. 2. Smaller, yellow green, pedunc. twisted at the base. With. *Dill.* 36. 21.

35. H. Shoots pinnate, branchlets approximate, points recurved. (Caps. ovate, inclined.) *Cristacastrensis.*
—— Chalk hills, &c. P. 3. 4. *Dill.* 36. 20.

36. H. Shoots pinnate, acuminate, leaves (subulate) erecto-patulous, caps. oblong, incurved. Dicks. iii. 10. *dubium.*
—— Wet heaths. — 2. *Dill.* 36. 21.

37. H. Shoots pinnate, somewhat cylindrical, remote, unequal. (Leaves ovato-lanceolate, terminated by a hair, closely imbricated. Weis. Caps. recurved. Lin.) *abietinum.*
—— Mount. places. P. 3. *Dill.* 35. 17.

38. H. Shoots somewhat pinnate, decumbent, branchlets remote, leaves ovate (caps. short, cernuous). *prælongum.*
—— Trunks of trees. P. 10—2. *Dill.* 35. 15.

4. *Leaves reflected* (viticulosum).

39. H. Shoots scattered, rather erect, leaves one-rowed, recurved, wrinkled at the base. (Caps. cylindrical, erect. With.) *rugosum.*
—— Bogs in Scotland. —— *Dill.* 37. 24.

40. H. Shoots prostrate, below elongated, very slender, naked; above branched, curved, stellate, leaves (acuminate) reflected, caps. cylindrical, ciliate (erect). Dicks. ii. 12. *flagellare.*
—— Stones near rivulets. — 9. *Dill.* 39. 42.

41. H. Branches scattered, procumbent, recurved, leaves 1-rowed, acuminate. (Caps. cylindrical, inclined.) *scorpioides*
—— Turfy bogs. P. 11—4. *Dill.* 37. 25.

42. H. Branches scattered, leaves lanceolate, doubled, keeled, recurved in five directions. (Caps. oval, inclined.) *squarrosum.*
—— Moist meadows. P. 2—5. *Dill.* 39. 38.

Var. 2. Leaves triangular, smaller, more reflected, caps. smaller, lid more acute. WITH. See Dill. P. 304.

palus'tre. 43. H. Shoots creeping, branches crowded, (nearly erect) leaves ovate, 1-rowed, caps. (cylindrical) rather erect.
—— Wet places. P. 1—4. *Dill.* 37. 27.

lo'reum. 44. H. Shoots creeping, branches scattered, (undulated) erect, leaves 1-rowed, caps. roundish (oval, inclined).
—— Mount. situations. P. 4. *Dill.* 39. 40.

adun'cum. 45. H. Shoots nearly erect, rather branched, leaves 1-rowed, recurved, subulate, branches recurved. (Caps. ovate, inclined, lid short, obtuse.)
—— Bogs. P. 4—8. *Dill.* 37. 26.

cupres'si-for'me. 46. H. Shoots somewhat pinnate, leaves 1-rowed, recurved, subulate at the point. (Caps. cylindrical, inclined when mature, lid pointed.)
—— Roots of trees. P. 2. 3. *Dill.* 37. 23.

compres'-sum. 47. H. Shoots pinnate, compressed, leaves recurved, acuminate, caps. nearly erect (oval, lid short, conical).
—— On trees. — 3. 4. *Dill.* 36. 22.

5. *Shoots shrub-like, or fascicled.*

dendroi'-des. 48. H. Shoot erect, branches fascicled, terminating, rather simple; caps. erect. (Caps. nearly cylindrical, beak bent, leaves lineari-lanceolate, imbricated. WITH.)
—— Roots of trees. P. 2. 3. *Dill.* 40. 48.

alopecu'-rum. 49. H. Shoot erect, branches fascicled, terminating, subdivided, caps. rather nodding (oblong, beak of the lid bent).
—— Sides of rivers, &c. P. 3. 4. *Dill.* 41. 49.

6. *Shoots nearly cylindrical.*

grac'ile. 50. H. Shoots creeping, branches fasciculate, cylindrical, nearly erect, caps. ovate, (oblong) erect. H. *ornithopoides.* Huds.
—— Trunks of trees, &c. P. 2—4. *Dill.* 41. 55.

attenua'-tum. 51. H. Shoots branched, branches incurved, at the summit attenuated, and incrassated, leaves ovate (acuminate), 1-rowed, caps. (cylindrical) erect, dentato-ciliate. DICKS. ii. 13.
—— Trunks of trees in Scotland. — *Dill.* 42. 66.

52. H. Shoots erect, filiform, somewhat branched, leaves ovato-lanceolate, without a mid-rib, imbricated. (Caps. ovate, gibbous on one side, erect, lid short, acute.) DICKS. i. 6. *stramin'eum.*
—— Marshy places. —— *Dicks.* 1. 9.

53. H. Shoots creeping, branches and caps. cylindrical (erect), leaves closely imbricated, ovate, acute. DICKS. ii. 12. *cylin'dricum.*
—— Trunks of trees in Scotl. —— *Dill.* 41. 57.

54. H. Shoots cylindrical, branched, leaves acute, patulous, distant. (Caps. oval, inclined.) *ripa'rium.*
—— Walls, &c. P. 9—4. *Dill.* 40. 44.

55. H. Shoots creeping, branched, cylindrical (mostly erect), leaves ovate, concave, caps. somewhat cernuous. Dicks. H. *myosuroides* γ. Huds. *mura'le.*
—— Walls. — 12. 1. *Dill.* 41. 52.

56. H. Shoots pendulous, filiform, very much branched, leaves imbricated, ovate, acute, caps. roundish, (somewhat) cernuous. DICKS. ii. 11. *mol'le.*
—— Banks of riv. in the Highl. — *Dicks.* 5. 8.

57. H. Shoots scattered, summit acuminate with convolute leaves. (Caps. cylindrical, slightly curved, inclined, lid short, conical.) *cuspida'tum.*
—— Bogs, &c. P. 3—5. *Dill.* 39. 34.

58. H. Shoots scattered; very much branched, branches filiform, caps. oblique (slender, erect, or inclined). H. *filiforme.* Huds. *filifo'lium.*
—— Trunks of trees. P. 2. *Dill.* 42. 62.

59. H. Shoots and branches scattered, cylindrical, rather erect, obtuse. (Caps. oblong, inclined, leaves ovato-oblong, acuminate.) *illec'ebrum.*
—— Heaths, &c. P. 3—10. *Dill.* 40. 46.

60. H. Shoots crowded, filiform, branched, caps. ovate, ciliate (slender, inclined when ripe), perichætium bulb-like. *Dicks.* ii. 11. *filamento'sum.*
—— Woods in Scotland. —— *Dill.* 36. 18.

61. H. Shoots pinnato-scattered, subulate, leaves ovate, obtuse, converging. (Caps. oval, inclined.) *pu'rum.*
—— Pastures, &c. P. 11. *Dill.* 40. 45.

Var. 2. More slender, mid-rib of the leaves red. WITH. *Dill.* 40. 47.

curtipen'dulum. 62. H. Shoots scattered, cylindrical, leaves ovate, acute, patulous, caps. (ovate) pendulous.
—— Trunks of trees. P. 2—4. *Dill.* 43. 69.

atrovi'rens. 63. H. Shoots creeping, branched, filiform, leaves ovato-lanceolate, limber, caps. obovate, ciliate, cernuous (small, black). *Dicks.* ii. 10.
—— Woods, at the roots of trees. — *Dill.* 43. 67.

7. *Shoots crowded* (gracile).

sciuroi'des. 64. H. Shoots erect, branched, incurved. (Leaves ovate, acuminate, caps. oblong, erect, stem creeping.)
—— Trunks of trees. P. 2—4. *Dill.* 41. 54.

sericeum. 65. H. Shoot creeping, branches crowded, erect, leaves subulate, caps. (ovato-cylindrical) erect.
—— Dry banks, &c. P. 9—4. *Dill.* 42. 59.

myosu'ron. 66. H. Shoots very much branched, subulate, crooked, attenuated upwards and downwards, caps. erect (cylindrical). WITH. H. *myosuroides* β. Huds.
—— Roots of trees, &c. — 1—3. *Dill.* 41. 50.

myosuroi'des. 67. H. Shoots very much branched, branches subulate, attenuated upwards and downwards. (Caps. inclined, cylindrical, leaves ovato-lanceolate, hair-pointed, erect.)
—— On rocks, &c. P. 1—3. *Dill.* 41. 51.
Var. 2. Leaves dark-green, shining. WITH. *Dill.* 41. 53.

ser'pens. 68. H. Shoots creeping, branches filiform, leaves obliterated (setaceous, caps. inclined, cylindrical).
—— Rotten wood, &c. P. 3—4. *Dill.* 42. 64.

veluti'num. 69. H. Shoot creeping, branches crowded, erect, leaves subulate, caps. (ovato-cylindrical) somewhat nodding.
—— Shady places. P. 9—3. *Dill.* 42. 61.

clavella'tum. 70. H. Creeping, branches erect, very much crowded, caps. (roundish) incurved, lids inflected.
—— Dead trunks of trees. P. 12—2. *Dill.* 85. 17.

1190. FONTINA'LIS. *Caps.* lidded. *Calyptre* sessile, included in the perichætium. (*Caps.* oblong, sessile, or nearly so, envelloped in an imbricated perichætium.)

1. *Capsules terminating.*

apocar'pa. 1. F. Caps. oblong, nearly sessile, lid scarlet, coni-

cal, beaked, leaves rather 1-rowed, lanceolate, keeled, calyptre very small, caducous. WEB. B. *apocarpum* α. Lin. Huds. & With. Grimmia *apocarpa*. Hedw. See page 253.

—— On trees, stones, &c. — 11—3. *Dill.* 32.4.

Obs. The highest hairy leaves are considered by Haller as a perichætium, but Weis objects to this because they only loosely surround the short peduncle.

2. F. Caps. roundish (sometimes lateral), lid obtuse, leaves ovato-lanceolate, concave, ending in hairs. WEBER. B. *apocarpum* β. Lin. Huds. With. Hedwigia *ciliata*. Hedw. *albicans.*

— Stones in hilly situations. 11. 12. *Dill.* 32. 5.

Obs. The leaves in winter are pale green, afterwards becoming hoary; and the old capsules remain disposed along the sides of the shoots, after the new ones are formed upon their extremities. DILL.

3. F. Leaves ovate, concave, three-rowed, acute, always in pairs. *minor.*

Less Water-moss. Banks of riv. P.8—10. *Dill.* 32.2.

2. *Capsules lateral.*

4. F. Leaves doubled together, keeled, 3-rowed, acute. *antipyretica.*

Greater Water-moss. Ponds. P. 6—9. *Dill.* 33. 1.

5. F. Leaves imbricated, subulato-lanceolate. *squamosa.*

Scaly W. Riv. on mount. P. 6—10. *Dill.* 33. 3.

6. F. Leaves 2-rowed, spreading. *pennata.*

Feathered W. Trunks of trees. P.8—10. *Dill.* 32.9.

7. F. Leaves 1-rowed, lineari-setaceous, leaflets of the perichætium very long, convolute, subulate. DICKS. ii. 1. FL. SUEC. 962. Caps. axillary. DILL. *capillacea.*

Hair-like W. Alpine riv. in Scot. — *Dill.* 33. 5.

Obs. The peduncle is of some length in this species, but is covered by the imbricated perichætium.

8. F. Leaves mostly 1-rowed, elliptical, rather obtuse, leaflets of the perichætium lanceolate, acute. DICKS. ii. 2. *alpina.*

Alpine W. Rocks in alpine riv. — *Dicks.* 4. 1.

Obs. The leaves are short, twisted when dry, and somewhat crisp; the capsule with its perichætium three times as large as the leaves. DICKS.

9. F. Branched, creeping, capsules 1-rowed, leaves ovate, acuminate. WITH. Sphagnum *arbo-* *secunda.*

reum. Huds. and Lin. Neckera *heteromalla.* Hedw. See page 245.

—— On trees. P. 12—2. With. 6—10. Huds.

Obs. The capsules are oblong rather than ovate, on very short peduncles, and are envellopped to the very point in a hairy scaly sheath, composed of leaves narrower than the rest, and ending in hairs. DILL. P. 248.

1188. BUXBAU'MIA. *Caps.* lidded, membranous on one side. *Calyptre* caducous (*Schmiedel*); a bag of powder within the lid. (*Caps.* ovate, oblique, at the base on one side ventricose, depressed; on the other marginate. SCHR.)

folio'sa. 1. B. Stemless, caps. nearly sessile, surrounded with leaves. LIN. Fil. Phascum *montanum.* Huds.

—— On rocks near Llanberris. A. 6. 10. *E.B.* 329.

ALGÆ.

1198. MARCHAN'TIA. M. *Calyx* sessile, campanulate, with numerous *anthers.*

F. *Calyx* peltate, covered underneath. *Cor.* 1-petalled. *Caps.* many-cleft.

(M. *Calyx* hypocrateriform. *Anthers* numerous, imbedded in its disk.

F. *Calyx* peltate, flowering beneath. *Caps.* bursting at their summits. *Seeds* attached to elastic fibres. SMITH.)

Obs. In this order, as well as the Musci, I have translated antheræ capsule, and have always given as the male flower what was made the female by Linnæus, since the observations of Hedwig and others have fully proved this to be the case.

polymor'pha. 1. M. Common calyx 10-cleft. (Calyx of the fem.-flow. cloven into about 10 narrow segments, frond horizontal, creeping, obtusely lobed, reticulated.)

—— Moist places. P. 6—8. *E. B.* 210. *Dill.* 76. 6.

Var. 2. β. Lin. Huds. 2. With. Plant smaller, not shining. *Dill.* 77. 7.

—— 3. γ. Lin. Huds. 3. With. Calyx 8-parted, segments plano-convex. *Mich.* 1. 5.

crucia'ta. 2. M. Common (female) calyx 4 (or 5) -parted, segments tubular.

—— Shady courts, &c. P. 6—10. *Dill.* 75. 5.

3. M. Common (female) calyx 5-cleft, hemispherical, perichætium 0. (Head hemispherical, with 5 globules underneath, bursting and discharging seeds.) *hemisphæ'rica.*
—— Wet rocks, &c. P. 4. 5. *Dill.* 75. 2.

4. M. Common calyx (about) 5-celled, somewhat ovate. (Frond dichotomous. Male flow. like warts.) *con'ica.*
—— Banks of brooks, &c. P. 3. 4. *Dill.* 75. 1.

5. M. Common calyx entire, hemispherical. (Frond dichotomous, segments linear, pedunc. terminating.) *androgy'na.*
—— Under moist rocks. —— *Dill.* 75. 3.

1196. JUNGERMAN'NIA. M. Sessile, naked, anthers? roundish.
F. Peduncled, naked. *Caps.* 4-valved. (Fem. on a peduncle arising from a sheath. *Caps.* 4-valved. *Seeds* attached to elastic filaments. SMITH.)

SYNOPTICAL TABLE of the SUBDIVISIONS.

1. *Fronds pinnate, leaflets without appendages.*
A. Peduncles terminating.
B. Peduncles from the middle or base of the frond.
2. *Fronds pinnate, leaflets appendaged.*
A. Peduncles terminating.
B. Peduncles from the middle or base.
3. *Fronds imbricated.*
A. Peduncles terminating.
B. Peduncles lateral.
4. *Stemless, fronds simple, without a mid-rib.*

1. *Fronds pinnate, leaflets without appendages.*

A. Peduncle terminating *(undulata).*

1. J. Leaflets (nearly) ovate, somewhat ciliate. *asplenioi'des.*
—— Road sides, &c. P. 2—3. *Dill.* 69. 5.
Var. 2. β. Huds. Var. 2. With. Leaflets more crowded. *Dill.* 69. 6.

2. J. Fronds lanceolate, leaflets very entire. *lanceola'ta.*
—— Shady banks. — 2, 3. *Dill.* 70. 10.

bidenta'ta. 3. J. Leaflets (ovate) 2-toothed.
—— Moistish heaths. — 10—12. *Dill.* 70. 11.
Var. 2. Smaller. *Dill.* 70. 12. J. *inflata.* Huds.

quinquedenta'ta. 4. J. Fronds branched, leaflets (quandrangular) 5-toothed.
—— Moist places. P. 4. *Dill.* 71. 23.

ma'crorhi'za. 5. J. Shoots erect, branched, leaflets alternate, retuse, patulous. *Dicks.* ii. 16.
—— High mount. of Scotl. —— *Dicks.* 5. 10.

fis'sa. 6. J. Leaflets bifid, male flow. on the summit of the stem. LIGHTF. (Leaflets 2-toothed, pedunc. terminating or lateral, supporting a barren globular flower. WITH.) Mnium *fissum.* Lin. J. *sphærocephala.* With.
—— Wet places. P. 2—10. *Dill.* 31. 6.

B. Pedunc. from the middle or base of the frond.

sphag'ni. 7. J. Fronds creeping, pedunc. lateral, leaflets roundish, very entire, imbricated, one-rowed. DICKS. i. 6.
—— Marshy places. — 5. *Dicks.* 1. 10.

angulo'sa. 8. J. Leaflets broadish, truncated, with three blunt teeth, pedunc. from the middle, sheath campanulate. DICKS. 7.
—— Shady places. —9. *Dill.* 71. 22. C. D. E.

viticulo'sa. 9. J. Leaflets flat, naked, linear. (Pedunc. on the mid-rid, mostly towards the lower part of the shoot, and at the origin of the branches, sheaths laciniated. WEIS.)
—— Shady ditch-banks. P. 3. 4. *Dill.* 69. 7.

polyan'thos. 10. J. Leaflets (ovate) very entire, imbricated, convex. (Ped. chiefly from the origin of the branches. WEIS.)
—— Woods. P. 3. 4. *Dill.* 70. 9.

bicuspida'ta. 11. J. Pedunc. from the middle, leaflets 2-toothed.
—— Shady places. P. 3. 4. *E. B.* 281. *Dill.* 70. 13.

ventrico'sa. 12. J. Pedunc. from the middle, sheath spheroidal, leaves bifid. *Dicks.* ii. 14.
—— Woods. —— *Dill.* 70. 14.

spinulo'sa. 13. J. Shoots erect, branched, leaflets obovate, with thorny teeth. DICKS. ii. 14.
—— Mountains. —— *Dill.* 70. 15.

pauciflo'ra. 14. J. Shoots creeping, very much branched, filiform, pedunc. from the middle, leaves incurved, 2-parted, sheaths conical, remote. *Dicks.* ii. 15.
—— On Sphagnum *palustre.* — *Dicks.* 5. 9.

15. J. Frond creeping, branched, leaflets alternate, in pairs, setaceous, (short, equal——Fronds simply pinnate, pedunc. from the base. HUDS. Sheaths 4-cleft. DILL.) *multiflo'ra.*
—— Wood on Shooter's-hill. — 3. *Dill.* 69. 4.

2. *Fronds pinnate, leaflets appendaged.*

A. Peduncles terminating *(resupinata).*

16. J. Fronds bipinnate above, leaflets roundish, very entire, undulated (connected by a small appendage near the mid-rib. WEIS.). *undula'ta.*
—— Shady pl. P. 3. 4. *Vaill.* 19. 6. *Dill.* 71. 17.

Obs. Linnæus says that his specimen agrees with Vaillant's fig., but not with that of Dill., and that the leaflets are placed in two rows, very entire, spreading, approximate, not imbricated, but disposed in a double order on both sides, alternate, equal in size, the upper not connected with the lower at the base, all slightly undulated.

17. J. Fronds bipinnate above, leaflets ciliate. *nemo'rea.*
—— Woods, &c. P. 3. 4. *Dill.* 71. 18.

18. J. Fronds bipinnate above, leaflets linear, recurved. *al'bicans.*
—— Woods, &c. P. 3. 4. *Dill.* 71. 20.

19. J. Leaflets appendaged underneath, roundish, convexo-concave, embracing the stem. LIGHT. SCOP. (Shoots somewhat cylindrical, rather erect, not always purple. WITH.) Mnium *Jungermannia.* Lin. J. *cochleariformis.* Weis. With. *purpu'rea.*
—— Bogs. P. 3—8. *Dill.* 69. 1. *not in fructif.*

20. J. Shoots creeping, branched, leaves ovate, alternate, appendaged underneath, sheaths obovate (torn at the summit, pedunc. terminating and lateral.). DICKS. iii. 11. *ova'ta.*
—— Barren heaths. —— *Dicks.* 8. 6.

21. J. Fronds simply pinnate, leaflets ovate, flat, very entire, stem bearing male flow. at its summit. LIGHTF. SCOP. Shoots creeping, appendaged underneath, leaves ovato-roundish, sometimes emarginate, sheath oblongo-cylindrical, hirsute, inferior. DICKS. iii. 10. Mnium *Trichomanes.* Lin. Huds. J. *scalaris.* Schmied. With. *Trichom'anis.*
—— Moist woods. P. 4—10. *Dicks.* 8. 5. *Dill.* 31.

Obs. The appendages of the leaves are minute, appressed, and in a single series. The sheath of the pedunc. is attached to the lower surface of the shoot near the base, and is fixed in the earth. DICKS.

B. Peduncles from the middle or base *(ovata)*.

resupina'ta. 22. J. Fronds bipinnate above, pedunc. from near the base (rarely terminating), leaflets crenulate, imbricated, circular.
—— Clefts of rocks, &c. P. 3. *Dill.* 71. 19.

triloba'ta. 23. J. Fronds bipinnate underneath, leaflets quadrangular, indistinctly 3-lobed.
—— Wales. P. 3. 4. *Dill.* 71. 22. A. B.

rep'tans. 24. J. Fronds bipinnate underneath, creeping at the extremity, leaflets 4-toothed. (Pedunc. from the middle.)
—— Shady places. P. 12—4. *Dill.* 71. 24.

minu'ta. 25. J. Fronds erect, pinnate, branched, leaflets appendaged underneath, roundish. *Dicks.* ii. 13.
—— Amongst mosses in the Highl. — *Dill.* 69. 2.

3. *Fronds imbricated.*

A. Peduncles terminating.

complana'ta. 26. J. Shoots creeping, leaflets appendaged below, doubly imbricated, branches equal (linear, pedunc. very short, axillary, and terminating.)
—— Trunks of trees. P. 1—4. *Curt. Dill.* 72. 26.

dilata'ta. 27. J. Shoots creeping, leaflets appendaged below, doubly imbricated, branches broader at the extremity.
—— Trunks of trees. P. 3. 4. *Dill.* 72. 27.

tamarisci'folia. 28. J. Leaflets imbricated in a double order (appendaged underneath), upper ones roundish, convex, obtuse, 4-times larger. (Stipules ovate. With.)
—— Trunks of trees, &c. P. 2. 3. *Dill.* 72. 31.

exci'sa. 29. J. Shoots creeping, branched, pedunc. terminating, leaves imbricated, concave, emarginate, sheath obovate. Dicks. iii. 11.
—— Moist shady woods. —— *Dicks.* 8. 7.

platyphyl'la. 30. J. Shoots procumbent, imbricated underneath, (appendaged) leaves cordate, acute. (Pedunc. terminating and lateral.)
—— Trunks of trees, &c. P. 3. 4. *Dill.* 72. 32.
Var. 2. Leaves shorter, more circular. *Dill.* 72. 33.

va'ria. 31. J. Shoots somewhat erect, 2-rowed, imbricated, leaves 2-parted.
—— Heaths, &c. P. 3. 4. *Dill.* 73. 36.

adun'ca. 32. J. Shoots filiform, recurved at the ends, leaves somewhat recurved, 1-rowed, pedunc. terminating, short. Dicks. iii. 12.
—— Shady banks in the Highl. — *Dicks.* 8. 8.

33. J. Shoots cylindrical (erect), leaflets imbricated on all sides, (appressed) flow. peduncled. (Sheath toothed. DILL. *Tab.* 73. 38.) *jula'cea.*
—— Wet rocks, &c. P. 9. 10. *F. Dan.* 1002. 2.

34. J. Shoots cylindrical, somewhat compressed, closely imbricated; compact, leaflets convexo-concave, smooth, flow. peduncled. LIGHTF. (Sheath not toothed. GRIFF.) A var. of J. *Julacea ?* Huds. App. *concinna'ta.*
—— Rocks on mountains. — 9. 10. *Dill.* 73. 38.

35. J. Shoots cylindrical, leaflets subulate, 1-rowed. (Whole plant very small.) *rupes'tris.*
—— Moist rocks. P. 3—10. *Dill.* 73. 40.

36. J. Shoots cylindrical, leaflets capillary, equal. *trichophyl'la.*
—— Turfy heaths. P. 4. *Dill.* 73. 37.

37. J. Shoots cylindrical, leaflets ovate, spreading, calyx (sheath) imbricated. *alpi'na.*
—— Wet rocks. P. 4—10. *Dill.* 73. 39.

38. J. Shoots creeping, branched, cylindrical, leaves imbricated, roundish, acuminate, cloven, summits incurved. DICKS. ii. 15. *curvifo'lia.*
—— Highl. of Scotl. &c. —— *Dicks.* 5. 7.

39. J. Shoot very short, unbranched, leaves imbricated, circular, nearly opposite, pedunc. very long (terminating). WITH. *pu'mila.*
—— On Cwm Idwel. Griffith. *With.* P. 18. 4.

B. Peduncles lateral (*platyphylla*).

40. J. Shoots creeping, tomentous above, leaflets entire, very tomentous. (Pedunc. axillary, sheaths long, villous. DILL.) DICKS. ii. 14. EHRH. J. *ciliaris.* Huds. With. *tomentel'la.*
—— Heaths, &c. P. 3. 4. *Dill.* 73. 35.

41. J. Shoots creeping, leaflets doubly imbricated, appendaged underneath, ciliate. (Pedunc. from the forks of the branches.) SP. PL. DICKS. ii. 14. J. *pulcherrima.* Lin. F. Dicks. i. 7. With. *cilia'ris.*
—— Heaths, &c. P. 3. *Dill.* 69. 3.

42. J. Shoots creeping, bipinnate above, pedunc. from the middle, sheath cylindrical, leaflets rounded (appendaged). DICKS. ii. 15. *ciner'ea.*
—— On moss in woods. — *Dill.* 72. 28.

4. *Stemless, fronds simple (without a mid-rib.* With.)

epiphyl'la. 43. J. A leaflet growing on the frond.
—— Fens. P. 3. 4. *Dill.* 74. 41.

pusil'la. 44. J. Frond mostly pinnatifid, lobes imbricated, perichætium plaited.
—— Moist places. P. 3—10. *Dill.* 74. 46.

furca'ta. 45. J. Frond linear, branched, the ends forked, rather obtuse.
—— Rocks, &c. P. 4. *Dill.* 74. 45.

sinua'ta. 46. J. Shoot bipinnatifid, flat, sinuated, patulous, summits unequally 2-lobed. DICKS. ii. 16.
—— Stones under water. —— *Dill.* 74. 44.

pin'guis. 47. J. Frond oblong, sinuated, slippery.
—— Bogs, &c. — 4. *E. Bot.* 185. *Dill.* 74. 42.

multif'ida. 48. J. Frond bipinnatifid.
—— Woods, &c. P. 4. 5. *E. Bot.* 186. *Dill.* 74. 43.

1197. TARGIO'NIA. *Calyx* 2-valved, containing a globe. (*Capsule* spherical, many-seeded.)

hypophyl'la. 1. TARGIONIA.
—— Heaths, &c. P. 3—5. *E. Bot.* 287. *Dill.* 78. 9.

—— SPHÆROCAR'POS. *Cal.* pyriform, perforated at the top. *Caps.* spherical, many-seeded, in the bottom of the calyx. MICH. SCHR. SMITH.

terres'tris. 1. SPHÆROCARPOS. —— Targionia *sphærocarpos.* Dicks. With.
— Clover-fields. Autumn. *E. Bot.* 299. *Dill.* 78. 17.

Obs. Mr. Dickson has referred this plant to Targionia, and has given the following char. of that genus and its species. *Fasc.* i. 8.

TARGIONIA. *Calyx* inflated, containing in the bottom a spherical many-seeded *Capsule.*

hypophylla. 1. T. Fructific. solitary, cal. opening.
sphærocarpos. 2. T. Fructific. clustered, cal. perforated at the summit.

1201. ANTHOC'EROS. M. *Cal.* 6-parted (often entire). *Anth.* 3 (—8, obovate, in the bottom of the calyx).
F. *Cal.* sessile, cylindrical, entire. *Caps.* subulate, very long, 2-valved.

puncta'tus. 1. A. Fronds undivided, (laciniate) sinuated, dotted.
—— Heaths. P. 3—4. *Dill.* 68. 1.

2. A. Fronds bipinnatifid, (segments) linear (acute). *multif'idus.*
—— Hollows of rocks. DICKS. *Dill.* 68. 4.

1199. BLA'SIA. M. *Cal.* naked (0). *Anth.* somewhat spherical, immersed in the leaves.
F. *Cal.* cylindrical, filled with seeds. (*Caps.* ovate, oblique, one-celled, crowned with a short truncated tube, gaping at the top. SCHR.)

1. BLASIA. *pusil'la.*
—— Sides of ditches. P. 8—11. *Dill.* 31. 7.

1200. RIC'CIA. M. naked. *Anth.* subulate, truncated.
F. naked. *Caps.* globular, 1-celled, many-seeded. SYST. Nat. ed. 10.
(M. Flow.? sessile on the surface of the frond. *Cal.* and *Cor.* none. *Anther?* conical, truncated, sessile opening at the top?
F. Flow. on the same (or a different MICH.) plant. *Cal.* none, except a vesicular cavity, within the substance of the leaf. *Cor.* 0. *Germen* turbinate. *Style* filiform, erect, reaching, or exceeding the surface of the frond. *Stig.* simple. *Caps.* globular, 1-celled, crowned with the style. *Seeds* numerous, hemispherical.—Is the tube placed upon the germen to be considered as the anther? SCHREBER.)

1. R. Fronds obcordate (or obovate), ciliate. *na'tans.*
—— Pools. A. 8—10. *E. Bot.* 252. *Dill.* 78. 18.

2. R. Fronds smooth, 2-parted, (segm.) acute. *min'ima.*
—— Watery places. A. 11. 12. *Dill.* 78. 11.

3. R. Fronds smooth, channelled. 2-lobed, obtuse. *glau'ca.*
—— Heaths. A. 10—4. *F. Dan.* 898. *Dill.* 78. 10.

4. R. Fronds dichotomous, linear-filiform. (Not seen in fructif. by Lin.) *flu'itans.*
—— Ditches. P. 1—12. *Dill.* 74. 47. *E. B.* 251.

5. R. Fronds compressed, branched, branches erect, forked, subulate. (Habit of Jungermannia *furcata.*) DICKS. i. 8. *fruticulo'sa.*
—— On moss upon trees. — *F. Dan.* 898. 3.

1202. LI'CHEN. M. *Meal* sprinkled on the leaves.
F. *Receptacle* roundish, flattish, shining.
(Male, Scattered warts.
Fem. Smooth shields or tubercles, in which the seeds are imbedded. SMITH.)

Obs. The powdery species of Byssus have been, perhaps with propriety, referred to this genus by Haller, Schreber, &c. but as we are ignorant of their fructification, and there is so great a number of species of Lichen, it has been thought more convenient to let them remain where they are placed in the Syst. Veg.

SYNOPSIS of the DIVISIONS.

1. *Leprous, with tubercles.*
2. *Leprous, with shields.*
3. *Imbricated.*
4. *Foliaceous.*
5. *Coriaceous.*
6. *Gelatinous.*
7. *Umbilicate.*
8. *Cup-bearing.*
9. *Shrub-like.*
10. *Filamentous.*

1. *Leprous, with tubercles* (candelarius, canescens, lentigerus).

rugo'sus. 1. L. Leprous, whitish, with crowded simple black lines, and dots.
—— On the bark of trees. P. 1—12. *Dill.* 18. 2.

scrip'tus. 2. L. Leprous, whitish, with branched black lines, in the form of characters.
—— On elms and oaks. P. 1—12. *Dill.* 18. 1.
Var. 2. Fructif. large, of an irregular figure, bearing a rude resemblance to Hebrew characters. WITH.
—— *Hoffm. en.* 3. 2. See Sphæria *scripta*.

fagin'eus. 3. L. Leprous, white, tubercles white, mealy.
—— Bark of beeches. P. 1—12. *Dill.* 18. 11. A. B.
Var. 2. Tubercles whitish, wrinkled, crust ash-colour. WITH. *Dill.* 18. 11. C. D.

betuli'nus. 4. Leprous, white, tubercle (about as large as hempseed) central, white. HUDS.
—— On the trunk and branches of birch. A. 9—4.

5. L. Leprous, white, tubercles white, hemispherical. *lac'teus.*
—— On rocks, &c. P. 1—12. *Hoffm. en.* 4. 6.

6. L. Leprous, black, tubercles black and white. *a'tro-al'bus.*
—— On rocks. P. 1—12. *Jacq. col.* iii. 4.

Obs. It is not easy to say which colour constitutes the crust. LIN.

7. L. Crust none, tubercles difform, plaited, and wrinkled, black. DAVIES. *sim'plex.*
—— On grey slate. Mr. Davies. *Lin. Tr.* ii. 28. 2.

8. L. Leprous, white, tubercles black. *calca'reus.*
—— On calcareous rocks. P. 1—12. *Dill.* 18. 8.

9. L. Crust whitish or greenish, very thin, tubercles black, minute, immersed in the stone, deciduous. WEBER, &c. *immer'sus.*
—— On limestone rocks. P. 1—12. *E. Bot.* 193.

10. L. Leprous, greenish-ash-coloured, tubercles black (rather large, red within). SP. PL. *sanguina'rius.*
—— On trees, and granite rocks. — *E. Bot.* 155.

11. L. Leprous, crust whitish, granulated, tubercles black. DICKS. i. 10. HAGEN. *granifor'mis.*
—— On pales and willows. —— *Hagen.* 1. 2.

12. L. Leprous, white, with fungous papillæ, tuberc. sessile, or stipitate, black. DICKS. ii. 17. *ocula'tus.*
—— Rocks and stones in Scotl. — *Dicks.* 6. 3.

13. L. Crustaceous, hoary, tubercles black, connected (numerous, large, turbinate when old. WEBER.). LIN. F. *musco'rum.*
—— Mosses. P. 1—12. *Rel.* p. 424. *F. D.* 1003. 1.

14. L. Crustaceous, ash-coloured-whitish, tubercles pill-form, black. DAVIES. *pilula'ris.*
—— Bodowen Park, Anglesea. *Lin. Tr.* ii. 28. 1.

Obs. Mr. Griffith is of opinion that this plant and L. *confluens* are the same under different circumstances of growth.

15. L. Crust white, puckered and raised into nearly hemispherical portions, tubercles black, globular, shining dimpled. WITH. *gelasina'tus.*
— Oak trees, near Denbigh. GRIF. *With.* 31. 1.

16. L. Leprous, (grey, white) tubercles black with white margins. L. *cinerascens.* With. *ciner'eus.*
—— Rocks and stones. P. 1—12. *Hoffm. en.* 4. 3.

Obs. Mr. Griffith is of opinion that this species, the *rupicola* and *compositus*, are not specifically distinct. See With.

Var. 2. Tubercles larger, more elevated, white within, border white, crenate, crust white. WITH. *Jacq. Coll.* ii. 14. 5. 6.

1202. LI'CHEN. M. *Meal* sprinkled on the leaves.
F. *Receptacle* roundish, flattish, shining.
(Male, Scattered warts.
Fem. Smooth shields or tubercles, in which the seeds are imbedded. SMITH.)

Obs. The powdery species of Byssus have been, perhaps with propriety, referred to this genus by Haller, Schreber, &c. but as we are ignorant of their fructification, and there is so great a number of species of Lichen, it has been thought more convenient to let them remain where they are placed in the Syst. Veg.

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—— On the bark of trees. P. 1—12. *Dill.* 18. 2.

scrip'tus. 2. L. Leprous, whitish, with branched black lines, in the form of characters.
—— On elms and oaks. P. 1—12. *Dill.* 18. 1.
Var. 2. Fructif. large, of an irregular figure, bearing a rude resemblance to Hebrew characters. WITH.
—— *Hoffm. en.* 3. 2. See Sphæria *scripta*.

fagin'eus. 3. L. Leprous, white, tubercles white, mealy.
—— Bark of beeches. P. 1—12. *Dill.* 18. 11. A. B.
Var. 2. Tubercles whitish, wrinkled, crust ash-colour. WITH. *Dill.* 18. 11. C. D.

betuli'nus. 4. Leprous, white, tubercle (about as large as hemp-seed) central, white. HUDS.
—— On the trunk and branches of birch. A. 9—4.

5. L. Leprous, white, tubercles white, hemispherical. *lac'teus.*
—— On rocks, &c. P. 1—12. *Hoffm. en.* 4. 6.

6. L. Leprous, black, tubercles black and white. *a'tro-al'bus.*
—— On rocks. P. 1—12. *Jacq. col.* iii. 4.

Obs. It is not easy to say which colour constitutes the crust. LIN.

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—— On grey slate. Mr. Davies. *Lin. Tr.* ii. 28. 2.

8. L. Leprous, white, tubercles black. *calca'reus.*
—— On calcareous rocks. P. 1—12. *Dill.* 18. 8.

9. L. Crust whitish or greenish, very thin, tubercles black, minute, immersed in the stone, deciduous. WEBER, &c. *immer'sus.*
—— On limestone rocks. P. 1—12. *E. Bot.* 193.

10. L. Leprous, greenish-ash-coloured, tubercles black (rather large, red within). SP. PL. *sanguina'rius.*
—— On trees, and granite rocks. — *E. Bot.* 155.

11. L. Leprous, crust whitish, granulated, tubercles black. DICKS. i. 10. HAGEN. *granifor'mis.*
—— On pales and willows. —— *Hagen.* 1. 2.

12. L. Leprous, white, with fungous papillæ, tuberc. sessile, or stipitate, black. DICKS. ii. 17. *ocula'tus.*
—— Rocks and stones in Scotl. — *Dicks.* 6. 3.

13. L. Crustaceous, hoary, tubercles black, connected (numerous, large, turbinate when old. WEBER.). LIN. F. *musco'rum.*
—— Mosses. P. 1—12. *Rel.* p. 424. *F. D.* 1003. 1.

14. L. Crustaceous, ash-coloured-whitish, tubercles pill-form, black. DAVIES. *pilula'ris.*
—— Bodowen Park, Anglesea. *Lin. Tr.* ii. 28. 1.

Obs. Mr. Griffith is of opinion that this plant and L. *confluens* are the same under different circumstances of growth.

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— Oak trees, near Denbigh. GRIF. *With.* 31. 1.

16. L. Leprous, (grey, white) tubercles black with white margins. L. *cinerascens.* With. *ciner'eus.*
—— Rocks and stones. P. 1—12. *Hoffm. en.* 4. 3.

Obs. Mr. Griffith is of opinion that this species, the *rupicola* and *compositus*, are not specifically distinct. See With.

Var. 2. Tubercles larger, more elevated, white within, border white, crenate, crust white. WITH. *Jacq. Coll.* ii. 14. 5. 6.

confluens. 17. L. Crust whitish, or ash-coloured, tubercles very black, large, confluent when old. Dicks. i. 9. Weber.
—— On rocks. *Web.* 2. *Hoffm. lich.* 19. 1.
Var. 2. Surface reticulated. *Mich.* 54. ord. 37. 7.
—— 3. Crust grey-white, tubercles globular. See L. *pilularis.*
—— 4. Crust rough, brown, much cracked, tubercles flat-topped. L. *pinnatus.* Dicks. ?
—— 5. Fructif. shield-like, changing to large black tubercles, crust brown, granulated, granulations large, resembling tubercles.
—— 6. Crust brown, changing to black. See With. 4. 9. from whom the above var. are taken.

cæruleonigricans. 18. L. Leprous, bluish, tubercles blackish (of an irregular shape). Light.
—— Highland rocks. P. 1—12. *F. Dan.* 1064. 1.

niger. 19. L. Leprous, black, tubercles roundish, black.
—— Rocks. P. 1—12. *Hoffm. en.* 3. 6.

fuscoater. 20. L. Leprous, brown, tubercles (lentil-shaped) black.
—— Rocks and stones. P. 1—12. *Jacq. coll.* ii. 14.
Var. 2. Crust none, tubercles black.

Oederi. 21. L. Leprous, red, tubercles black. (Leproso-crustaceous, chinky, rusty-red, tuberc. heaped together, imbedded, difform, black, somewhat marginate. Dicks. ii. 13.)
—— Rocks, &c. in Scotl. —— *Hoffm. lich.* 19. 2.

querneus. 22. L. Leprous, brownish-yellow, tuberc. black (or brown), somewhat immersed. Dicks. i. 9.
—— Trunks of oaks. P. 1—12. *E. Bot.* 485.

geographicus. 23. L. Leprous, yellowish, with black lines resembling a map. (Tubercles black, flat, and irregular, imbedded in the crust. Smith.)
—— Rocks in the north. P. 1—12. *E. Bot.* 245.

sulphureus. 24. L. Leproso-crustaceous, cracked, somewhat gibbous, pale sulphur-col., tub. irregular, minute, brownish-black. Dicks. ii. 17.
—— Rocks in Scotland. — *Hoffm. lich.* 11. 3.

flavovirescens. 25. L. Leprous, mealy, greenish-yellow, tubercles black, rough, mostly cushion-shaped. Dicks. iii. 13.
—— On sandy soil. —— *Dicks.* 8. 9.
Var. 2. Tubercles black, very minute, crust fine yellow-green, granulated. With.

sphærocephalus. 26. L. Leprous, yellowish, tubercles on black stalks, globular, dark grey (or black), discharging black

powder, intermixed with grey fibres. SMITH. Weber. Mucor *lichenoides*. Lin. Clathrus *cinereus*. Huds. Trichia *lichenoides*. Sibth. With.

— On the bark of oaks. *E. Bot.* 414. *Dill.* 14. 3.

Var. 2. Tubercles 2 or 3 upon one stipe.

Obs. The durable nature of this plant, and its crust, separate it from the Fungi, and it should either be referred to a new genus, or to the lichens. From Mucor it is certainly very different. WEBER. P. 199. M. *sphærocephalus* as well as *lichenoides* is referred to this species by Weber.

27. L. Leprous, green, margin and tubercles black. (Is it specifically distinct from L. *geographicus*?) *a'tro-vi'rens.*

—— On rocks. P. 1—12. *Hoff. lich.* 17. 4.

28. L. Leprous, whitish, tubercles pale (brown) with a white margin. *rupic'ola.*

—— On limestone rocks. — *Hoffm. en.* 6. 3.

29. L. Tubercles black brown, imbedded, nearly flat, compound, very irregular in shape, not bordered, crust white, tessellated. WITH. *compos'itus*

—— On granite. GRIFF. *With.* 31. 2.

30. L. Crustaceous, ash-coloured green, tubercles stipitate, brown. SCOP. WITH. *fungifor'mis.*

— Rocks near Bishop's Cast. Shrop. *Dill.* 14.4.

31. L. Leprous, mealy, targets stipitate, nearly globular. (Crust leprous, granulated, greenish-white, tubercles stipitate, nearly globular, reddish-brown. SMITH.) L. rufus and byssoides? Huds. Lycoperdon *equinum*. With. *byssoi'des.*

—— On the ground. — *E. Bot.* 373. *Dill.* 14. 4.

32. L. Leprous, white, tubercles flesh-coloured. (Crust leprous, granulated, greenish-white, shields nearly sessile, flat, flesh-coloured, with a narrow whitish margin. SMITH.) *erice'torum.*

—— Turfy heaths, on the gr. — *E. Bot.* 372.

Var. 1. Tubercle stipitate, like a small agaric, with a convex pileus.

—— Turfy heaths. P. 1—10. *Dill.* 14. 1.

Var. 2. Crustaceous, verdigrise-colour., shields flesh-col. L. *æruginosus*. Syst. Veg. ed. 14.

—— 3. Crust ash-coloured, tubercles flesh-col., sessile, flat, angular. L. *Icmadophila*. Lin. sup. With. L. *elveloides*. Weber.

Obs. When this Lichen grows on rotten wood, and in the the shade, its crust is of a light verdigrise green, in which state it has been found by Dr. Smith, who also refers L. *Icmadophila* to this species. See E. Bot. P. 374.

Bœomy'ces. 33. L. Crust leprous, granulated, greenish-white, tubercles stipitate, tumid, lobed, (pink) flesh-col. SMITH. SIBTH. LIN. sup.
—— Mount. heaths. —— *E. Bot.* 374. *Dill.* 14. 1.

cal'vus. 34. L. Leproso-crustaceous, whitish, with black pores, tuberc. scattered, cushion-like, smooth, shining, dark tawny (of the size of a mustard-seed). DICKS. ii. 18.
—— Rocks in mount. parts of Scotl. *Dicks.* 6. 4.

verna'lis. 35. L. Leprous, whitish, tuberc. roundish, rust-col. L. *ferrugineus.* Huds.
—— Bark of trees, &c. P. 1—12. *Dill.* 18. 4.

sphæroi'cles. 36. L. Leprous, ash-coloured-greenish, tuberc. flesh-coloured, (or brown) globular. DICKS. i. 9,
—— Heaths and woods. — 6. *Dicks.* 2. 2.

fla'vorubes'cens. 37. L. Crustaceous, greenish, ash-coloured, shields (tubercles With.) orange-red. HUDS. L. *aurantiacus.* Lightf.
—— Trunks of trees. P. 1—12. *F. Dan.* 955. 1.

pertu'sus. 38. L. Leprous, warts (tubercles greenish-ash-col.) somewhat tessellated, polished, with one or two cylindrical holes.
—— Bark of trees, &c. P. 1—12. *Dill.* 18. 9.

vento'sus. 39. Leprous, yellow, tubercles red. L. *gelidus.* Hud.
—— On rocks. P. 1—12. *Hoffm. lich.* ii. 27. 1.

coccin'eus. 40. L. Crustaceous, mealy, greenish sulphur-colour., tubercles very red, immersed in the crust. DICKS. i. 8.
—— Stones of Stone Henge, Wilt. — *E. Bot.* 223.

2. *Leprous, with shields.* (Ericetorum, flavo-virescens, flavo-rubescens.)

corallil'nus. 41. L. Leprous, branched, cylindrical, fascicled, fastigiate, very much crowded, white. (Crustaceous, with crowded branches, shields white, very minute, on the summits of the branchlets. WEBER.)
—— Rocks and m. heaths. P. 1—12. *Hoffm.* 4. 2.

Obs. This plant connects the crustaceous with the shrub-like lichens. WEBER.

Parel'lus. 42. L. Crustaceous, (yellow-) white, shields, concave, obtuse, pale (with yellowish white obtuse margins. WITH.).
—— Rocks, walls, &c. P. 1—12. *Dill.* 18. 10.

43. L. Crustaceous, wrinkled, black, shields ash-coloured, margin whitish (very obtuse, crenate). DICKS. iii. 14. *crenula'tus*
—— On rocks in Yorkshire. — *Dicks.* 9. 1.

44. L. Crustaceous, rather lobed, white, shining, shields brown black, with a white margin. DICKS. iii. 15. *can'dicans.*
—— Rocks in Yorkshire. —— *Dicks.* 9. 5.

45. L. Crustaceous, white, shields black, shining (changing to buff), the margin white. DAVIES. *va'rians.*
—— S. W. side of Anglesea. *Lin. Tr.* ii. 28. 3.

Obs. As it advances in age, the shields become gradually lighter, till they assume a buff colour. DAVIES.

46. L. Crustaceous, whitish, wrinkled, shields black, margin white, rather crenate. HUDS. *a'ter.*
—— On walls, &c. P. 1—12. *Dill.* 18. 15. A.

47. L. Crustaceous, ash-coloured, somewhat tiled, shields black, crowded, margin white. RELH. *subimbrica'tus.*
—— Stones and walls. P. 1—12. *Relh.* at p. 427.

48. L. Crustaceous, whitish, shields somewhat immersed, confluent, concentric, black. DAV. *concen'tricus.*
—— Whinstone rocks, in Flintsh. *E. Bot.* 246.

49. L. Leproso-crustaceous, chinky, ash-coloured, (with a very narrow black margin), shields black, very numerous, small, roundish (with a white margin incorporated with the crust. SMITH.) DICKS. iii. 15. *puncta'tus.*
—— Rocks in Scotland. —— *E. Bot.* 450.

50. L. Crustaceous, ash-colour., granulated, shields black, immersed, margin (incurved) crenulate. DICKS. i. 11. *scrupo'sus.*
—— Walls. P. 1—12. *E. Bot.* 266. *Dill.* 18. 15.

51. L. Crustaceous, expanded, whitish with a glaucous tinge, shields (small, numerous, central) very black. DICKS. i. 10. (Tubercles very black. WITH.) *canes'cens.*
—— Walls, &c. — *Dicks.* 2. 5. *Dill.* 18. 17. A.

52. L. Crustaceous, very chinky, black and white variegated, shields tubercle-like, brown-black. DICKS. iii. 13. *frustulo'sus.*
—— Rocks in Scotl. & Yorks. — *Dicks.* 8. 10.

53. L. Crustaceous, black, shields much crowded, flat, black, with an ash-colour. margin (when old tubercle-like). DICKS. iii. 14. *a'tro-cine-r'eus.*
—— On stones. —— *Dicks.* 9. 2.

gibba'sus. 54. L. Crustaceous, warty, brown (thickish) shields black, somewhat immersed, bordered by the crust. DICKS. ii. 20.
—— Summit of Ben Lawers. — *Dicks.* 6. 5.

cæ'sius. 55. L. Crustaceous, rusty ochre-coloured, shields blue-black, (small, numerous) elevated, with an obtuse margin. DICKS. ii. 19. L. *Dicksoni.* With.
—— On slate rocks in Scotl. —— *Dicks.* 6. 6.

pruina'tus. 56. L. Crustaceous, very thin, rust-coloured, shields difform, rather convex, bluish-black. DICKS. iii. 15.
—— Stones on the Scotch mount. — *Dicks.* 9. 4.

cor'neus. 57. L. Shields brown, pale, semi-transparent, border the same, crust white, farinaceous. WITH.
—— On oaks. Griffith. —— *With.* 31. f. 3.

pal'lidus. 58. L. Crustaceous, somewhat villous, hoary, shields brown, rough, flat, elevated, the margin undulated, white. DICKS. ii. 19. HOFFM.
—— Bark of trees. —— *Hoffm. lich.* 17. 2.

subfus'cus. 59. L. Crustaceous, whitish, shields brownish, margins ash-coloured, somewhat crenate. SP. PL. 1609. (Shields black, the younger urceolate, hollow. SYST. Veg. ed. 14.)
—— Bark of trees. P. 1—12. *Dill.* 18. 16. A. f. 3, 4.

lacus'tris. 60. L. Shields reddish brown, immersed in the crust, crust pale yellow brown, thin, wide-spreading, much cracked. WITH.
—— On granite. GRIFFITH. *With.* Pl. 31. 4.

palles'cens. 61. L. Crustaceous, whitish, shields pale white, ash-coloured, or brown, very much crowded, often angular, with a crenate margin. Weis.
—— Rocks, walls, &c. P. 1—12. *Hoff. en.* 10. 2. 1.

Obs. It is very nearly allied to L. *subfuscus*, and is perhaps a var. of that in a younger state; it differs in the paler colour of the disk. WEIS.

pezizoi'des. 62. L. Crust (glaucous) fugacious, shields yellow (or yellow brown) crowded, marginate. (Margin elevated, crenate, glaucous.) DICKS. i. 10. WEBER.
—— Sandy banks. —— *Dicks.* 2. 4.

Hypno'rum. 63. L. Crustaceous, greenish, leaflets rounded, shields red brown, crenate at the margin. DICKS. iii. 14.
—— Barren heaths, &c. DICKS. *F. Dan.* 956.

fri'gidus. 64. L. Crustaceous, whitish, somewhat shrub-like, branchlets very short, crowded, shields tile-col., marginate (margin white).
—— Tops of Highland mount. — *Lin. Fil.* 2. 4.

65. L. Crustaceous, whitish, shields tubercular, wrinkled, tile-coloured. (Crustaceous, somewhat orbicular, rather wrinkled, whitish, centre tubercle-bearing, shields concave, red, with a marginal crust. Dicks. ii. 19.) Not L. *gelidus*. Huds. *gel'idus.*
—— Rocks on the Highl. mount. *F.D.* 470. 2.

66. L. Crustaceous, chinky, pale green with black dots, shields hemispherical, concave, reddish, with a white margin. Dicks. ii. 18. Hedw. *cupula'ris.*
—— On slate rocks. — *Hedw. stirp.* ii. 29. B.

67. L. Crustaceous, white, mealy (thin), with a fibrous margin, shields imbedded, scarlet, concave, when old convex, margin thick, white, elevated, mealy. Smith. Ehrh. Gmelin. *Hæmatom'ma.*
—— On brick walls. —— *E. Bot.* 486.

68. L. Shields red rust-coloured, border the same, very finely crenate, crust grey. With. *crenula'rius.*
—— Rocks in Denb. Grif. — *With.* P. 31. 5.

69. L. Leprous, ash-coloured, shields flesh-coloured, very minute, immersed in the white dots of the crust. Dicks. Smith in Lin. Tr. *exanthemat'icus.*
—— Calcareous rocks. Dicks. — *Lin. Tr.* i. 4. 1.

70. L. Crustaceous, powdery, somewhat ash-coloured, shields flesh-coloured within, rather concave, the outside and border rather hirsute, and white. Dicks. ii. 18. *marmo're-us.*
—— Bark of trees, &c. —— *Hoffm. en.* 6. 4.

71. L. Shields orange-coloured, border pale brown, crust dull green. With. *tri'color.*
—— On half-decayed oak-bark. — *With.* 31. 6.

Obs. When old, the shields become black, and their margins turn inwards, so that they assume an oblong figure, with a groove through their whole length. In this state it has been named Sphæria *sulcata* by Bolton, and is figured by him *Pl.* 124. See Withering.

72. L. Crustaceous, whitish-green, shields (large) yellowish, with a white margin. *tarta'reus.*
—— Rocks, &c. P. 1—12. *E. Bot.* 156.

73. L. Crustaceous, granulated, whitish, shields dirty yellow, flat, indistinctly marginate. Dicks. ii. 18. *fusco-lu'teus.*
—— On Ben Lawers, &c. —— *Dicks.* 6. 2.

74. L. Crustaceous, greyish white, shields scattered, yellow, smooth, border and under side somewhat ash-col. Dicks. iii. 14. Hedw. *ceri'nus.*
—— Bark of trees. —— *Hedw. stirp.* ii. 21. B.

quadri'color. 75. L. Crustaceous, powdery, grey-white, shields brown yellow, changing to black, flat. DICKS. iii. 14.

—— Mountains in Scotland. —— *Dicks.* 9. 3.

lentig'erus. 76. L. Crustaceous, whitish, somewhat lobed (crenate), shields (tawny) bordered with white, growing yellow when older. (Crust foliaceous, shields when old changing to yellowish tubercles. WEBER.) LIN. F.

—— Heaths, &c. P. 1—12. *Web.* 3. 1. *Relh.* p. 430.

upsalien'sis. 77. L. Crustaceous, leaflets subulate, striated. (Shields cream-colour, border white, crust white, composed of subulate masses, striated, brittle. WITH.)

—— Heaths near Norwich. *Dicks.* 2 7.

byssi'nus. 78. L. Crustaceous, powdery, blackish (or brown), shields flat, yellow, with a white (elevated) margin. DICKS. ii. 19. Hoffm.

—— Trees and stones. — *E. Bot.* 432. *Hoff. en* 4. 7.

flaves'cens. 79. L. Crustaceous, yellow-greenish, shields brownish yellow. HUDS. L. *flavicans.* With. A var. of L. *candelarius?*

— Bark of trees, &c. P. 1—12. *Dill.* 18. 18 A. C.

mura'lis. 80. L. Somewhat imbricated, yellowish green, shields of the same colour, becoming yellow, margin pale. DICKS. i. 11. SCHREB.

—— On rocks and walls. P. 1—12. *Hoff. lich.* 16. 1.

Obs. This species connects the crustaceous with the imbricated lichens.

candela'rius. 81. L. Crustaceous, yellow, shields yellow. (Shields orange-yellow when young, crust yellow, powdery; when old, tubercles yellow, crust yellow, somewhat leafy at the edge. WITH.)

—— Rocks, walls, &c. P. 1—12. *Dill.* 18. 18. B.

Obs. Mr. Griffith thinks it probable that L. *candelarius*, *concolor*, *parietinus*, and *flavescens* are the same plant under different circumstances. See Withering.

lu'teus. 82. L. Leproso-crustaceous, greyish-green, shields yellow, with a yellow margin. DICKS. i. 11.

—— Trunks of trees. —— *Dicks.* 2. 6.

rimo'sus. 83. L. Leprous, whitish, crust chinky with roundish angular portions, shields glaucous with a white margin. DICKS. i. 12.

—— Rocks & stones in Yorks. — *F. Dan.* 468. 3.

3. *Imbricated* (muralis, granulatus, palmatus, cristatus, sinuatus, crispus.

leucophæ'- 84. L. Imbricated, crustaceous, leaflets very minute,

crenate-many-cleft, glaucous, brown, the points thicker, very obtuse, mealy, shields (tubercles) flat, black, with a whitish margin. Dicks. ii. 20. *us.*

—— Rocks. — *F. Dan.* 955. 2. *Dill.* 82. 2.

85. L. Imbricated, leaflets many-cleft, linear, brownish, shields brown black. (Border pale brown, points of the leaflets bent down.) Huds. L. *pullus.* Lightf. L. *obscurus.* With. *fus'cus.*

—— Rocks, &c. —— *Dill.* 24. 69.

86. L. Imbricated, crustaceous, leaflets minute, sinuated, thick, brown green, whitish underneath, tuberc. black. Dicks. ii. 20. *lu'ridus.*

—— Rocks on mountains. —— *Dill.* 30. 134.

87. L. Imbricated, leaflets linear, dichotomous, flattish, acute, (brown, becoming) black, shields black. *fahlunen'sis.*

—— Rocks. — *Hoffm. lich.* 36. 2. *Dill.* 24. 81.

88. L. Imbricated, leaflets indistinctly many-cleft, ciliate, margin dark-green, shields brown black, ciliate. Dicks. iii. 16. Hoffm. *cilia'tus.*

—— On rocks and stones. — *Hoffm. en.* 14. 1.

89. L. Imbricated, leaflets palmate, recurved, black. (Shields circular, black, concave, with an obtuse crenulate margin.) Dicks. iii. 16. *styg'ius.*

—— Lofty mountains. —— *Hoffm. lich.* 25. 2.

90. L. Imbricated, leaflets minute, thickish, rounded, sinuato-angular, glaucous, green, shields plano-convex, rough, black, with an indistinct margin. Dicks. ii. 20. *squama'tus.*

—— Upon the ground. —— *Dill.* 30. 135.

91. L. Imbricated, leaflets indistinctly many-cleft, bearing greyish-white tubercles, shields blackish, the margin and outside whitish. Dicks. iii. 17. *Pso'ra.*

—— Stones, roofs, &c. — *Hoffm. lich.* 8. 1.

92. L. Imbricated, leaflets somewhat circular, rather remote, tawny, whitish at the margin and underneath, shields marginal, convex, black (tile-coloured. With.). Dicks. ii. 21. L. *stellatus.* Relh. *decip'iens.*

—— On heaths, P. 1—12. *Hedw. st.* ii. 1. B.

93. L. Imbricated, leaflets very much crowded, somewhat erect, rounded, lacerated, with a mealy margin, shields thick, elevated, flat, reddish, Dicks. ii. 21. *carno'sus.*

—— Rocks on the mount. of Sc. — *Dicks.* 6. 7.

multif'idus. 94. L. Imbricated, leaflets indistinctly many-cleft, semi-cylindrical, yellowish, shields scattered, brown. Dicks. iii. 16.
—— Stones. —— *Dicks.* 9. 7.

cras'sus. 95. L. Imbricated, leaflets lobed, rounded, crenate, greenish (cartilaginous), shields flat, tawny. Huds. L. *cartilagineus.* With.
—— Rocks, &c. P. 1—12. *Dill.* 24. 74.

tilia'ceus. 96. L. Imbricated, leaflets with rounded lobes, dotted, glaucous-whitish, shields brown, with a white margin. Dicks. iii. 16. Hoffm.
—— Bark of trees. —— *Hoffm. en.* 16. 2.

ful'vus. 97. L. Imbricated, leaflets many-cleft, distorted, tawny on both sides, shields tawny, marginate.
—— On rocks. —— *Dill.* 24. 68.

diffu'sus. 98. L. Imbricated, leaflets linear-many-cleft, obtuse, curled, powdery, glaucous-white, shields circular, flattish, rather prominent, rusty brown, margin white, crenulate. Dicks. iii. 17. Web.
—— On old pales. —— *Dicks.* 9. 6.

plum'beus. 99. L. Imbricated, leaflets obtusely lobed, lead-colour, blue and spongy underneath, shields (small, flat) rusty red. Lightf. L. *cærulescens.* Huds.
—— On trees. P. 1—12. *E. B.* 353. *Lightf.* 26.

stella'ris. 100. L. Imbricated, leaflets oblong, laciniated, narrow, ash-coloured, shields blackish-brown.
—— Trunks of trees, &c. —— *Dill.* 24. 70.
Var. 2. β. Huds. Lobes of the leaflets obtuse, crenate, shields black, margin crenate. *Dill.* 24. 71.
—— 3. γ. Huds. Shields blackish, with an ash-coloured curled border. Dill. in Ray syn. 75. 75.
—— 4. Shields large, purplish-black, border white, regular. With. L. *stellariformis.* Hoff.

physo'des. 101. L. Imbricated, segments obtuse, somewhat inflated. (Shields red brown, stipitate, leaflets whitish above, black underneath, hollow as if inflated, segments laciniated, obtuse. With.)
—— Trunks of trees, &c. P. 1—12. *E. Bot.* 126.

centrif'ugus. 102. L. Imbricated, leaflets indistinctly many-cleft, even, (greenish) whitish, spreading from the centre, shields red brown.
—— Rocks, walls, &c. P. 1—12. *Dill.* 24. 75.

saxat'ilis. 103. L. Imbricated, leaflets sinuated, rough, pitted (glaucous), shields bay-coloured.
—— Stones, rocks, &c. P. 1—12. *Dill.* 24. 83.

104. L. Imbricated, leaflets many-cleft, smooth, pubescent, hoary, points scattered, raised. (Shields dark purple within, blackish when dry.) *omphalo'des.*
Cork. On rocks. P. 1—12. *Dill.* 24. 80.——

105. L. Imbricated, leaflets curled, tawny, shields tawny. (Shields deep orange, margin paler, entire. SMITH.) *parieti'nus.*
—— Walls. P. 1—12. *E. Bot.* 194. *Dill.* 24. 76.
Var. 2. β. Smith. Leaflets greenish, lax, shields brown, or olive on the disk. L. *juniperinus.* Huds. *E. Bot.* 194.

106. L. Imbricated, leaflets many-cleft, dentato-crenate, blackish-green, shields marginal, flattish, (brown green) black brown. HUDS. *margina'lis.*
—— Rocks and stones. A. 10—6. *Dill.* 19. 25.

107. L. Imbricated, leaflets lobed, shining, livid. (Shields brown green, crenate, leaflets lobed, shining, brown green. WITH.) *oliva'ceus.*
—— Rocks, stones, &c. P. 1—12. *Dill.* 24. 78.
Var. 2. Shields smooth. WITH. *Dill.* 24. 77.
—— 3. Segm. broader, more wrinkled, sprinkled with numerous small warts, shields none. WITH.

4. *Foliaceous* (fascicularis, cochleatus, resupinatus).

108. L. Foliaceous erect, compressed, branched, warts (shields) marginal, mealy. *farina'ceus.*
—— On trees. P. 1—12. *Dill.* 23. 63. A.B.C.
Var. 2. Leaflets broader, warts more numerous, smaller, margin curled. *Dill.* 23. 63. D.
—— 3. Leaflets broader, stiffer, warts fewer, larger. *Dill.* 23. 63. E. See Withering.

109. L. Foliaceous, rather erect, even, somewhat tomentous, branched, segments lanceolate, (Shields white, mealy, small, foliage grey white. WITH.) *fucifor'mis.*
—— Rocks on the coast of Guerns. *Dill.* 22. 61.

110. L. Foliaceous, very much branched, porous, hoary whitish, branches fascicled, cylindrical, branchlets short, fastigiate, subulate, somewhat obtuse, tubercles lateral, flattish, mealy. DICKS. ii. 22. *fucoi'des.*
—— Rocks, &c. near the sea. — *Dill.* 22. 60.
Obs. It has much affinity with L. *fuciformis* in regard to its somewhat coriaceous texture. DICKS.

Pinas'tri. 111. L. Foliaceous (yellow green) ascending, lobed, with a yellow curled powdery margin. (Fructif. not discovered.) Dicks. iii. 18. Scop.
—— On the bark of Scotch Firs. *Hoffm. lich.* 7. 1.

calica'ris. 112. L. Foliaceous, erect, linear, branched, pitted, convex, mucronate. (Shields pale-green grey, lateral and terminating, foliage pale-grey green. With.). A var. of L. *farinaceus* ?
—— Rocks and bark of trees. P. 1—12. *Dill.* 23. 62.

trape'zi-for'mis. 113. L. Leaflet minute, with rounded angles, thickish, dark green, tubercl. like dots under the surface of the frond, afterwards elevated, blackish. Dicks. ii. 22. L. *Endocarpon.* With.
—— Heaths. *Hedw. stirp.* ii. 20. A. *Dill.* 30. 133.

croca'tus. 114. L. Foliaceous, the margin powdery, yellow. (Foliaceous, pitted, reddish yellow, with yellow grains, segm. sinuated, rounded, shields somewhat concave, brown black, bordered by the frond. *Dicks.* ii. 22.)
—— Rocks in the Highlands. —— *Dill.* 84. 12.

prunas'tri. 115. L. Foliaceous, rather erect, pitted, tomentous underneath, white. (Shields brown, white on the outside, stipitate. With.)
—— On trees. P. 1—12. *Dill.* 21. 55.
Var. 2. β. Huds. V. 2. With. Narrow-leaved. *Dill.* 21. 54.

glau'cus. 116. L. Foliaceous, (glaucous) depressed, lobed, smooth, the margin curled, mealy. (Tubercles brown, small.)
—— On the ground. P. 1—12. *Dill.* 25. 96.

fal'lax. 117. L. Foliaceous, laciniated, thin, glaucous above, white underneath, with black spots, shields terminating (red brown). Weber. Dicks. i. 13.
—— Rocks in Devonshire. —— *Dill.* 22. 58.

islan'dicus. 118. L. Foliaceous, ascending, laciniated, (brown green) margins elevated, ciliate. (Shields purplish brown, very large, ciliate.)
—— On mountains. —— *Dill.* 28. 111.
Var. 2. β. Huds. Leaves narrower, smoother, margins ciliate, involute. Dill. 212. *Tab.* 28. 112.

pulmona'rius. 119. L. Foliaceous, laciniated, obtuse, smooth, (green) pitted above, tomentous underneath. (Shields red brown, mostly on the edges of the foliage.) *Lungwort.* Trunks of trees. P. 1—12. *Dill.* 29. 113.

120. L. Foliaceous, rather erect, segments linear, ciliate, shields (red brown) stipitate, crenate. *cilia'ris.*
—— On trees. P. — *Dill.* 20. 45.
Var. 2. *Warty.* Large, without shields. WITH. *Dill.* 20. 45. B.

121. L. Foliaceous, (greyish,) decumbent, branny, segm. acute; pitted underneath and black. (Shields reddish brown, rarely seen.) *furfura'ceus.*
—— On trees and pales. P. 1—12. *Dill.* 21. 52.

122. L. Shields dark brown, nearly sessile, leaves grey green, segments blunt, nearly erect, ciliate, the ends tubular when old. HOFFM. WITH. L. *ciliaris* β. Huds. *tenel'lus.*
—— On trees and stones. — *Dill.* 20. 46.

123. L. Foliaceous, straight, oblong, lanceolate, somewhat laciniated, pitted, smooth (greenish ash-colour), shields somewhat stipitate (pale brown). *fraxin'eus.*
—— Trunks of trees. P. 1—12. *Dill.* 22. 59.

124. L. Foliaceous, straight, compressed, linear, laciniated, shining, the sides warty. (Tubercles pale brown, glossy, on short stalks, foliage pale green. With.) DICKS. iii. 18. *scopulo'rum.*
—— Rocks. DICKSON. —— *F. Dan.* 959. 2.

125. L. Somewhat foliaceous, curled, shields elevated, muricated and curled, the bottom depressed, flat. (Foliaceous, somewhat imbricated, curled. Shields elevated, brown, slightly concave, with a green, leafy, curled, and sinuated border. SMITH.) *Burges'sii.*
—— Trunks of trees. P. 1—12. *E. Bot.* 300.

126. L. Foliaceous, creeping, even, and glaucous above, bearing dark green, branched, tufted excrescences, shields tawny. SMITH. LIGHT. WITH. L. *laciniatus.* Huds. *glomulif'erus.*
—— On trees. P. 1—12. *E. Bot.* 293.

126. L. Foliaceous, creeping, obtusely lobed, crenate, bright green above, whitish, tomentous, veinless underneath, shields tawny. SMITH. LIGHTF. WITH. L. *herbaceus.* Huds. *læ'te-vi'rens.*
—— On trees and stones. P. 1—12. *E.B.* 294.

128. L. (Slightly foliaceous) pale green, wrinkled, margin undulated. (Shields red brown, seldom found.) *capera'tus.*
—— On stones, &c. — 1—12. *Dill.* 25. 97.

scrobiculatus. 129. L. Foliaceous, creeping, roundly lobed, crenate, pitted, glaucous above, with mealy warts; brown and tomentous underneath, with white bald spots, shields small, scattered, tawny. SMITH. SCOP. L. *verrucosus*. Huds.
—— Trees, &c. P. 1—12. *E. Bot.* 497. *Dill.* 29. 114.

saturninus. 130. L. Foliaceous, with rounded lobes, blackish above, ash-coloured underneath, and villous, shields red, marginate. DICKS. ii. 21.
—— Trunks of trees in Scotland. *Dicks.* 6. 8.

nivalis. 131. L. Foliaceous, ascending, laciniated, curled, smooth, pitted, white, the margin elevated. (Shields pale flesh-colour.)
—— Rocks in Scotland. —— *Dill.* 21. 56.

Endiviæfolius. 132. L. Foliaceous, twisted, greenish yellow above, whitish underneath, tubercles red, marginal. DICKS. iii. 17.
—— On barren heaths. —— *Mich.* 42. 3.

ampullaceus. 133. L. Foliaceous, flattish, lobed, crenulate; shields globular, inflated (dark purple within. With.).
—— Emot past. Lancash. P. 9—11. *Dill.* 24. 82.

tenuissimus. 134. L. Imbricated, greenish-brown, leaflets digitate-many-cleft, shields somewhat immersed, reddish-brown, margins obtuse. DICKS. i. 12.
—— On sand-banks near Norwich. — *Dicks.* 2.8.

perlatus. 135. L. Foliaceous, creeping, lobed, (grey above) margin mealy, black (and hairy) underneath, shields stipitate, somewhat crenate, brown. SYST. NAT. ed. 12. (Shields olive-colour when moist, browner when dry. SMITH. *E. Bot.* 341.)
—— On trunks of trees. P. 1—12. *Dill.* 20. 39.

membranaceus. 136. L. Foliaceous, depressed, plaited, wrinkled, mealy, pale sulphur-colour, shields somewhat concave, of the same colour (few, minute). *Dicks.* ii. 21.
—— Rocks in the Highlands. — *Dicks.* 6. 1.

concolor. 137. L. Foliaceous, crowded, leaflets minute, erect, curled, yellow, shields (reddish-) yellow. DICKS. iii. 18. See Lichen *candelarius*. Page 292.
—— On trees, &c. —— *Dicks.* 9. 8.

5. *Coriaceous* (fucoides).

fluviatilis. 138. L. Coriaceous, creeping, lobed, lobes obtuse, very entire, green above, underneath whitish at the margin, brownish towards the centre, a little pitted. WEBER. (Tuberc. brown, small, immersed. With.) L. *aquaticus*. Weis. With. Not Lin. L. *fluviatilis*. Weber.
—— On stones in rivulets. *Web.* 4. *Dill.* 30. 128.

Obs. Since the trivial name *fluviatilis* is applied by Hudson, and *aquaticus* by Linnæus to another species, neither could with propriety be used here, and the term *fluviaticus* has on that account been substituted.

139. L. (Coriaceous), foliaceous, creeping, roundish, (green above, white underneath) targets depressed, with sacks underneath (blackish). *sacca'tus.*
—— Rocks. —— *E. Bot.* 288. *Dill.* 30, 121.

140. L. Coriaceous, creeping, nearly circular, flat; underneath veined, villous, saffron-coloured; shields scattered, on the surface of the leaf (flat, brown. Frond green on the upper surface). *cro'ceus.*
—— Alpine heaths. P. 1—12. *E. Bot.* 498.

141. L. Coriaceous, creeping, lobed, obtuse, flat (ash-coloured, mealy); underneath villous, veined, shield marginal (reddish brown), ascending. *cani'nus.*
—— Woods. P. 1—12. *Dill.* 27. 102.

142. L. Coriaceous, tubercles red brown, ovate, terminating, pedicelled, foliage dull green, smooth, flat, lobed, segments digitate, underneath woolly and veined. With. L. *caninus* γ. Huds. *polydac'tylos.*
—— Near Bangor, Wales. — *Dill.* 28. 107.

Var. 2. δ. Huds. Shorter, thinner, more variegated. With. *Dill.* 28. 108.

143. L. Coriaceous, creeping, ovate, flat, (dull green) underneath veined, villous, shields (purplish brown) marginal, horizontal. *veno'sus.*
—— Moist rocks. P. 1—12. *Dill.* 28. 109.

144. L. Coriaceous, creeping, lobed, obtuse, flat, (green, becoming brown) warts scattered, target marginal, ascending. (Tubercles terminating, purple, or red brown.) *aphtho'sus.*
—— Shady places. P. 1—12. *Dill.* 28. 106.

145. L. Coriaceous, tubercles reddish brown, terminating, foliage, dull, green, deeply lobed, lobes obtuse, margins incurved, underneath woolly with black fibres. L. *caninus* β. Huds. *rufes'cens.*
—— Woods, &c. P. 1—12. *Dill.* 27. 103.

146. L. Coriaceous, creeping, sinuato-lobed, rough, (grey green), spungy, villous, pitted (yellowish) underneath, shields flat, rust-colour, margins pale. Dicks. i. 13. *fuligino'sus.*
—— On moss. —— *Dill.* 26. 100.

resupina'tus. 147. L. Coriaceous, creeping, lobed (brown), shields marginal (rust-coloured, large) on the under side of the frond.

—— On trees. P. 1—12. *E. Bot.* 306. *Dill.* 28. 105.

Obs. This plant is scarcely coriaceous.

scuta'tus. 148. L. Coriaceous, creeping, lobed, many-cleft, curled, ash-colour above, naked (veinless) underneath, target marginal, reddish. Dicks. iii. 18. Wulfen.

—— Bark of trees. Dicks. *Jacq. Coll.* 4. 18. 1.

sylvat'icus. 149. L. Coriaceous, creeping, laciniated, pitted (warty, brown green), targets marginal, ascending (small, brown red).

—— Shady woods. P. 1—12. *Dill.* 27. 101.

horizonta'lis. 150. L. Coriaceous, creeping, flat (brown green, edges white), veinless underneath, targets marginal, horizontal (tawny red).

—— Moist rocks. P. 1—12. *Dill.* 28. 104.

6. *Gelatinous.*

Tremelloi'des. 151. L. Foliaceous, gelatinous. somewhat erect, dark green, margin curled, laciniated, shields small, numerous, tawny, brown. Scop. Weis. Huds. Lightf. L. *Tremella.* With. Tremella *lichenoides.* Lin.

—— Trees and stones. P. 1—12. *Dill.* 19. 31.

Var. 2. β. Weis. V. 4. With. Segments of the leaves very slender. *Dill.* 19. 35.

—— 3. γ. Weis. V. 3. With. Leaflets nearly straight, crowded. *Dill.* 19. 34.

—— 4. δ. Weis. V. 2. With. Leaves more obtuse, broader. *Dill.* 19. 32.

sepin'cola. 152. L. Foliaceous, imbricated, laciniated, ascending, chesnut, shields of the same colour. Dicks. iii. 18. Ehrh.

—— Stones on Scotch mount. *Hoffm.* 17. 1.

granula'tus. 153. L. Imbricated, leaflets roundish, crenate, roughish, dark green, shields tawny, disk depressed.

—— On walls, &c. P. 1—12. *Dill.* 19. 24.

cochlea'tus. 154. L. Foliaceous, membranous, lobed, plaited, dark green, shields (not crowded) brown red. Dicks. i. 13.

—— Roots of trees. —— *Dicks.* ii. 9.

Obs. The leaves are concave and greyish lead-colour when dry.

155. L. Imbricated, leaflets somewhat palmate, rather crenate, glaucous-purple, shields tawny. Huds. *palma'tus.*
—— Heaths. A, 9—6. *Dill.* 19. 30.

156. L. Leafy, gelatinous, roundish, lobed, wrinkled, dark green, shields crowded, red brown. L. *Vespertilio.* Lightf. *nigres'cens.*
—— Trees. A. 10—6. *E. Bot.* 345. *Dill.* 19. 20.

157. L. Imbricated, dentato-ciliate, shields (red) larger than the leaflet. *crista'tus.*
—— Rocks, &c. A. 10—7. *Dill.* 19. 26.

158. L. Imbricated, leaflets roundish, sinuated, crenate, brown green, shields of the same colour (very small). Huds. *sinua'tus.*
—— Rocks. A. 9—7. *Dill.* 19. 33.

159. L. Foliaceous, gelatinous (dark green), tuberc. turbinate, fascicled, larger than the frond. (Shields dirty green and concave when young, reddish, and turbinate when old. With.) *fascicula'ris.*
—— On stones and trees. —— *Dill.* 19. 27.

160. L. Imbricated, leaflets lobed, truncated, crenate, dark green, shields of the same colour. *cris'pus.*
—— On stones in shady situations. *Dill.* 19. 23.

161. L. Tubercles blackish green, roundish, foliage dark green, gelatinous, lobes oblong, thick, obtuse. With. *rupes'tris.*
—— On stones and rocks. — *Dill.* 19. 22.

162. L. Imbricated, leaflets (gelatinous) lobed, somewhat convex, blackish green, shields globular, hollow, of the same colour. Huds. *fluviat'ilis.*
On stones in alpine riv. P. 1—12. *Dill.* 19. 28.

7. *Umbilicate* (root central).

163. L. Umbilicate, (black) smooth on both sides, plaited-curled, lobed, pimpled underneath, marked above with convexo-depressed (black) targets. L. *Jacquini.* With. *pul'lus.*
—— Rocks on mount. — *Jacq. misc.* ii. 9. 3.

164. L. Umbilicate, brown black, wrinkled above, reticulato-fibrous underneath, warts (tubercles) black, curled. Lightf. L. *polyrrhizos.* Huds. *torrefac'tus.*
—— On Rocks, &c. P. 1—12. *Dill.* 30. 118.

Obs. Mr. Griffith is of opinion that L. *pullus.* Dicks. L. *deustus.* Huds. and L. *torrefactus.* Lightf. are not specifically distinct. See With. iv. page 62.

deus'tus. 165. L. Umbilicate, (grey brown) on both sides even. (Tubercles black. With.)
—— Rocks. —— *Vaill.* 21. 14.

Obs. L. *deustus*, and *proboscideus* according to Mr. Griffith are the same plant.

anthraci'nus. 166. L. Umbilicate, (black brown) even on both sides. (the margin) plaited-curled, lobed, targets none.
—— Rocks in Scotl. Dicks. *Jacq. misc.* ii. 9. 4.

Dille'nii. 167. L. Tubercles black, small, foliage ash-colour, obtusely lobed, soft, pliable, thick, underneath brown black, roughish. With.
—— St. Vincent's rocks. P. 1—12. *Dill.* 30. 117.

polyrrhi'zos 168. L. Umbilicate, (grey-glaucous) many-leaved, even on both sides, with many (fibrous) roots. (Tubercles black, numerous.)
—— On rocks. *Hoff. lich.* 2. 3. & 4. *Dill.* 30. 130.

Obs. L. *velleus* and *polyrrhizos* are considered as the same by Dr. Smith.

pustula'tus. 169. L. Umbilicate, (greenish when moist) pitted underneath, sprinkled with a black bran. (Shields black, flattish, seldom found.)
— Rocks. P. 1—12. *Hoff. lich.* 28. 1. 2. *Dill.* 30. 131.

proboscide'us. 170. L. Umbilicate, shields turbinate, truncated, perforated. (Umbilicate, lobed, ciliate (greenish grey), tuberc. (black) peduncled, their disk marked with concentric lines. Smith.) L. *crinitus.* Lightf.
—— Rocks. P. 1—12. *E. Bot.* 522. *Dill.* 29. 116.

Var. 2. Foliage complicated. With.

polyphyll'us. 171. L. Umbilicate, many-leaved, even on both sides, blackish green, crenate. (Tuberc. very minute, black.)
—— Rocks and stones. P. 1—12. *Dill.* 30. 129.

miniatus. 172. L. Umbilicate, gibbous, dotted, tawny underneath. (Tuberc. red, small, globular, immersed.)
—— Rocks and stones. P. 1—12. *Dill.* 30. 127.

amphibius. 173. L. Leaves covered with numerous minute dots, bright green, changing to dusky olive, coiled up like hollow cylinders. With. L. *miniatus* β. Huds. &c.
—— On rocks and stones. — *F. Dan.* 532. 2.

8. *Cup-bearing.*

folia'ceus. 174. L. Cup-bearing, cups conical, very short, with

black marginal tubercles, leaflets grey or yellow green, ascending, many-cleft, pure white underneath. HUDS. ed. 1. WITH. L. *pyxidatus* δ. foliaceus. HUDS.

—— Dry commons. — *Dill.* 14. 12. A. B. D.

175. L. Cup-bearing, simple, (cup grey green) crenulate, tubercles brown. *pyxida'tus.*

—— Ditch-banks, &c. P. 1—12. *Dill.* 14. 6.

Var. 2. β. Huds. Cups proliferous from the centre. WITH. *Dill.* 14. 6. D. to H.

—— 3. Cups proliferous from the edge. *Dill.* 14. 6. I.

—— 4. γ. Huds. Cups proliferous, with tubercles. WITH. *Dill.* 14. 6. C. K. L. M.

176. L. Cup-bearing, simple, toothed, stalk cylindrical. (Tuberc. brown, small, marginal.) SP. PL. L. *pyxidatus* δ. Huds. *fimbria'tus.*

—— Heaths, &c. P. 1—12. *Dill.* 14. 8. A. B.

Var. 2. Proliferous from the edge of the cup. *Dill.* 14. 8. C.

—— 3. Tubercles somewhat resembling a cup. *Dill.* 15. 20.

177. L. Cup-bearing, branched, denticulate, filiform. (Tubercles reddish brown.) *grac'ilis.*

—— Rocky heaths. —— *Dill.* 14. 13.

178. L. Tubercles brown, cups unequally toothed, radiate, stalks tall, cylindrical, a little branched. WITH. L. *pyxidatus* ρ. Huds. *radia'tus.*

—— Enfield Chace. —— *Dill.* 15. 16.

179. L. Cup-bearing, very much branched, ventricose, cups toothed, tubercles brown. HUDS. ed. 1. (Whole plant hoary and woolly. WITH.) *ventrico'sus.*

—— Rotten wood. —— *Dill.* 15. 17.

180. L. Cup-bearing, somewhat simple, rather ventricose, cups toothed. (Tubercles small, reddish.) L. *pyxidatus* μ. Huds. *defor'mis.*

—— Rotten wood, &c. —— *Dill.* 15. 18.

181. L. Cup-bearing, simple, very entire, filiform, tubercles brown (red). HUDS. ed. 1. WITH. L. *tubiformis.* Lightf. L. *pyxidatus* ζ. Huds. *filifor'mis.*

—— Black Heath, &c. —— *Dill.* 14. 11.

Var. 2. Cups very small, brown within, stalks very short. *Dill.* 14. 11.

coccif'erus. 182. L. Cup-bearing, simple, very entire, stalk cylindrical, tubercles scarlet. (Cups greenish grey.) L. *pyxidatus* ν. Huds.
—— Heaths. — 10—4. *Dill.* 14. 7.

cornu'tus. 183. L. Cup-bearing, simple, somewhat ventricose, cups entire. (Tubercles scarlet. With.) L. *pyxidatus* λ. Huds.
—— Moist heaths, &c. —— *Dill.* 15. 14.

digita'tus. 184. L. Cup-bearing, very much branched, branches cylindrical, cups entire, knotted. (Tubercles scarlet.) L. *digitatus* ξ. Huds.
—— Barren heaths, &c. — 2. *Dill.* 15. 19.

cornucopioi'des 185. L. Cup-bearing, simple, (cup edged with a leafy fringe), shorter than the leaf, tubercles scarlet. . *pyxidatus* κ. Huds.
—— Moors, &c. P. 1—12. *Dill.* 14. 9.

Obs. All the species of this division are made var. of L. *pyxidatus* by Weis. See Fl. Götting. pag. 83, &c.

9. *Shrub-like.*

siliquo'sus. 186. L. Shrubby, solid, compressed, somewhat branched, tubercles (shields grey white) lateral, concave. Huds.
—— On stones and rocks. P. 1—18. *Dill.* 17. 38.

globif'erus. 187. L. Shrubby, solid, even, (brown, much branched, branches cylindrical, acute, forked) tubercles globular, (black within) hollow, terminating.
—— Rocks, &c. —— *E. Bot.* 115. *Dill.* 17. 35.

frag'ilis. 188. L. Shrubby, solid, branches (compressed) cylindrical, obtuse. (Shields filled with black powder, intermixed with fibres, terminating.)
—— Rocks and stones. P. 1—12. *E. Bot.* 114.

vermicula'ris. 189. L. Shrubby, even, somewhat branched, branches diffuse (white, subulate), tubercles scattered (lateral, globular). Lin. F.
—— Moss on high mount. —— *Dicks.* 6—10.

rangifer'inus. 190. L. Shrubby, (tubular, hoary, sometimes) perforated, very much branched, branchlets nodding. (Tubercles brown, or blackish.)
—— Heaths, &c. P. 1—12. *E. Bot.* 173. *Dill.* 16. 29.
Var. 2. Ends of the branches reddish. *Dill.* 16. 30.

subula'tus. 191. L. Shrubby, somewhat dichotomous, branches simple, subulate. (Tubercles brown.)
Horned Moss. Woods and heaths. — *Dill.* 16. 26.

192. L. Shrubby, solid, leafless, somewhat branched, tubercles alternate, powdery (blackish brown). *Roccel'la.*

Orchall. Portland Island. *Dill.* 17. 39. *E. B.* 211.

193. L. Shrubby, solid, branchlets compressed, branched, blackish at the ends, shields terminating (blackish brown. W.) Lin. F. L. *corniculatus.* Lightf. L. *radiatus.* Huds. *tris'tis.*

—— On rocks. P. 1—12. *Weber* 5. *Dill.* 17. 37.

194. L. Shrubby, solid, dark brown, very much branched, branches diverging, rather compressed, angles obtuse (the ends forked, acute, tuberc. brown, laciniated, terminating). Lightf. L. *islandicus* γ. Huds. *his'pidus.*

—— Heaths, &c. *E. Bot.* 452. *Dill.* 17. 31.

195. L. Shrubby, (tubular) perforated, branchlets very short, acute. (Tubercles reddish brown, very minute, at the tips of the brown terminating branches.) *uncia'lis.*

—— Heaths. P. 1—12. *E. Bot.* 174. *Dill.* 16. 22.

Var. 2. Larger and less crowded in its growth. With. *Dill.* 16. 21.

196. L. Shrubby, solid, covered with crustaceous leaflets. (Tubercles olive, or brown, terminating, on short stalks.) *pascha'lis.*

—— Rocks on high mount. P. 1—12. *E. B.* 282.

197. L. Shrubby, tubular, very much branched, thorny, branchlets tubercled, somewhat digitate. Huds. ed. i. (Tuberc. brown red, numerous, terminating. With.) L. *uncialis* γ. Huds. ed. ii. *spino'sus.*

—— Mount. situations. —— *Dill.* 16. 25.

Obs. This plant forms the connecting link between L. *uncialis* and *subulatus.* Huds.

198. L. Shrubby, hollow, whitish, leafless, branches very few, very short, obtuse, tuberc. terminating, flesh-colour. Dicks. i. 13. Ehrh. *Papilla'ria.*

—— Heaths. — Spring. Winter. *Dill.* 16. 28.

199. L. Shrubby, tubular, branched, branches erect, forked. Huds. ed. i. (Tuberc. terminating, small, tawny red. With.) L. *subulatus* β. furcatus. Huds. *furca'tus.*

—— Heaths, &c. P. 1—12. *Dill.* 16. 27.

Var. 2. Leaves remarkably crisped and leafy. With. *Dill.* 16. 27. D.

muscicola. 200. L. Shrubby, crustaceous, very much branched, branches very short, interwoven, black green, shields of the same colour. Dicks. ii. 23. Swartz.

—— On moss on the higher mount. *Dicks.* 6. 9.

10. *Filamentous.*

ochroleucus. 201. L. Filamentous, erect, dichotomous, branches diverging, the points forked, black. Dicks. iii. 19. Ehrh. (Plant yellow white, tubercles mealy, scattered. With.)

—— High mount. in Scot. Dicks. *Hoff. lich.* 26. 2.

jubatus. 202. L. Filamentous, pendulous, the axils compressed. (Tubercles whitish, mealy, very minute, mostly lateral. With.)

—— On rocks, &c. P. 1—12. *Dill.* 12. 7.

hirtus. 203. L. Filamentous, very much branched, erect, tubercles mealy, scattered.

—— Old hedges, &c. —— *Hoffm. lich.* 30. 1.

chalybeiformis. 204. L. Filamentous, branched, diverging, decumbent, matted together, flexuose. (Plant grey, or brown green, fructif. not discovered. Dill.) L. *jubatus* β. Huds.

—— Trunks of trees. —— *Dill.* 13. 10.

exilis. 205. L. Filamentous, (black) very much branched, cespitose, filaments capillary, interwoven, opake, rough. (Shields blackish.) Lightf. L. *scaber.* Huds.

—— On naked rocks. P. 1—12. *Dill.* 13. 9.

lanatus. 206. L. Filamentous, very much branched, decumbent, interwoven, opake (nearly black).

—— Rocks and stony places. P. 1—12. *Dill.* 13. 8.

Var. 2. Branches anastomosing. *Jacq. coll.* ii. 13. 6.

Obs. Mr. Griffith is convinced that this plant and L. *chalybeiformis* are not distinct. See With.

pubescens. 207. L. Filamentous, very much branched, decumbent, implicated, (black) shining. (Shields olive-colour, changing to tubercles. With.)

—— Rocks and stony places. —— *Dill.* 17. 32.

articulatus. 208. L. Filamentous, jointed, branchlets very slender, dotted. (Filamentous, pendulous, cracked, tumid, tubercles flesh-coloured, rugged. E. Bot.

—— On branches of trees. P. 1—12. *E. Bot.* 258.

Var. 2. *barbatus* β. Smith. With. Tubercles pale

flesh-coloured, small, plant less tumid, with fewer transverse cracks. See Lightf. L. *barbatus*. Lin. Huds.

—— On branches of trees. — *Dill.* 12. 6.

Obs. Linnæus has given the following char. of L. *barbatus*. "Filamentous, pendulous, somewhat jointed, branches spreading."

209. L. Filamentous, very much branched, erect, fastigiate, unequally angular (lemon-coloured, or dull olive-green). *vulpi'nus.*

—— On trees. P. 1—12. *Dill.* 13. 16.

210. L. Filamentous, pendulous, branches implicated, shields (grey green) radiate. *plica'tus.*

Tree Moss. Trees. P. 1—12. *E. B.* 857. *Dill.* 11. 1.

211. L. Filamentous, branched, erect, shields radiate (pale yellow green, large, terminating). *flo'ridus.*

— On branches of oaks. P. 1—12. *Ger.* 1560. 5.

212. L. Filamentous, simple, or only divided at the apex, brown black, tubercled. (Like a horse-hair.) Weber. Sibth. *Dill.* 67. *Tab.* 13. 11. *hippotricho'ides.*

— On a rotten sack. Mr. Skrimshire. 1—12.

1208. Bys'sus. *Down*, or *Powder*, very simple. (*Fructificat.* Powder, Capsules?)

1. *Filamentous.*

1. B. Filaments feathery, swimming. *Flos-a'quæ.*
Paper Byssus. Stagnant waters. A. 5—9. ——

2. B. Downy, violet-coloured, growing on wood. *phospho'rea.*
Violet Bys. Rotting wood. A. 13—5. *Dill.* 1. 6.

3. B. Filam. simple, very fine, of a verdigrise colour. Huds. *ærugino'sa.*
Verdigrise B. On dead ferns. A. 8—4. *Dill.* 1. 7.

4. B. Capillary, green, filam. branched. —— *veluti'na.*
Velvet B. Moist bark of tr. A. 10—6. *Dill.* 1. 14.

5. B. Purple, capillary, perennial. Lightf. (Filaments erect, simple, or branched, (very short) purplish. Smith.) B. *rubra*. Huds. *purpu'rea.*
Purple B. Marine rocks. P. 1—12. *E. Bot.* 192.

6. B. Filam. powdery, branched, black. Huds. *ni'gra.*
Black Bys. On stones. P. 1—12. *Dill.* 1. 18.

7. B. Capillary, powdery (orange-coloured), fructificat. scattered, filam. simple and branched (matted, greyish when dry). *Dill.* 1. 16. *au'rea.*
Golden B. Sides of cav. P. 1—12. *E. Bot.* 212.

ful'va. 8. B. Filam. branched, tawny. HUDS. (Filam. erect, finely feathery, tawny, fructific. (hispid capsules?) terminating. WITH. *Dill.* 1. 17.
Tawny B. Rotting wood. P. 1—12. *With.* 18. 5. a. b.

barba'ta. 9. B. Filam. somewhat erect, the ends branched, somewhat fastigiate, tawny. HUDS.
Bearded B. Rotting wood. A. 1—12. *Dill.* 1. 19.

can'dida. 10. B. Filam. very much branched, branchlets fascicled, whitish. HUDS.
White B. Rotting leaves, &c. A. 9—4. *Dill.* 1. 15.

sep'tica. 11. B. Capillary, very soft, parallel, very brittle, pale. (Filam. very long, very fine, branched, matted. HUDS.)
Flaky Byssus. Damp cellars. P. 5—12. *Dill.* 1. 9.
Var. 2. β. Huds. V. 2. With. Very tender, mouse-coloured. (Pale yellow, or red, changing to glaucous, red brown, and then blackish. DILL.)
Mouse-skin B. On wine casks. —— *Dill.* 1—12.

crypta'rum. 12. B. Capillary, perennial, ash-coloured, tough, on rocks.
Cave B. Limestone caverns. P. 1—12. *Dill.* 1. 20.

2. *Powdery.*

antiquita'tis. 13. B. Powdery, black. (Filam. very fine, covered with a black powder. Lich. *antiquitatis.* With.)
— On old walls. P. 1—12. *Hoffm. en.* 3. 5. r. hand.

saxati'lis. 14. B. Powdery, ash-coloured, covering rocks. Lichen *cinereus.* With.
—— On Limestone rocks in Derbysh. P. 1—12.

Jo'lithus. 15. B. Powdery, blood-coloured, growing on stones. Lichen *Jolithus.* With.
—— Rocks, &c. P. 1—12. *F. Dan.* 899. 2.

candela'ris. 16. B. Powdery, yellow, growing on wood. Lichen *flavus.* With.
—— Bark of trees, &c. A. 9—6. *Dill.* 1. 4.

botryoi'des. 17. B. Powdery, green. L. *botryoides.* With.
—— On walls, &c. P. 1—12. *Dill.* 1. 5.

inca'na. 18. B. Powdery, hoary, like scattered meal. Lichen *incanus.* With.
— Gravelly soil near ditches. A. 10—6. *Dill.* 1. 3.

lactea. 19. B. Powdery, inclining to crustaceous, very white. Lichen *albus.* With.
—— On decayed mosses, &c. P. 1—12. *Dill.* 1. 2.

1204. TREMEL'LA. *Fructifications* scarcely perceptible, in a gelatinous body.

Obs. It is distinguished from the *gelatinous* Lichens by having neither tubercles nor shields. See Weis. Page 51.

1. T. Sessile, gelatinous, difform, whitish. Huds. *al'bida.*
—— Half rotten branches of trees. A. 9—5.
2. T. Sessile, membranous, labyrinth-like, grey, white within. Dicks. i. 14. (Hard when dry.) *All'ii.*
On rotten roots of Allium. *Nov. act. Dan.* 286. 1.
3. T. Round, imbricated, livid. *adna'ta.*
—— Rocks, &c. on the sea shore. P. 1—12. —
4. T. Sessile, roundish, undulated, blackish. Hud. *arbo'rea.*
Witches' Butter. On trees. A. 9—5. *Dill.* 10. 15.
Var. 2. *fusca.* Semi-transparent, brown. With. *Bull.* 406. B.
5. T. Dark pinky red, gelatinous, stiff, globoso-compressed, surface roughish (very small). With. *cinnabari'na.*
—— In clusters on mosses, &c. — *Bull.* 456. 2.
6. T. Tooth-like, tawny, velvety (more than an inch long, crowded). *Dicks.* i. 14. *Sabi'næ.*
—— On living bran. of Sabine. — 4. *Mich.* 88. 5.
7. T. Deliqueseent, yellow, changing to orange-red, sessile, lobed, lobes few, obtuse (about $\frac{1}{10}$ of an inch broad). With. *deliques'cens.*
— In clusters on timber. — 11. 2. *Bull.* 455. 3.
8. T. Twisted into large many-fold plates. (Sessile, membranaceo-gelatinous, heaped together, sinuous, gold-colour. Dicks. Retz.) T. *juniperina.* Huds. T. *mesenterica.* Dicks. *mesenteri-for'mis.*
—— Dead branches of trees. A. 9—5. *Bull.* 406.
9. T. Plaited, undulated. (Sessile, roundish, plaited, waved, of an olive green. Smith.) *Nos'toc.*
Star-slough. Pastures, &c. A. 1—12. *E. Bot.* 461.
10. T. Gelatinous, spherical, aggregate, (on short stipes) green. Huds. (Containing a fluid. E. Bot.) Ulva *granulata.* Sp. pl. not Syst. veg. *granula'ta.*
—— Sides of ditches. A. 10—6. *E. Bot.* 324.
11. T. Sesssile, tubercled, gelatinous, tubercles hollow (green). Huds. *utricula'ta.*
—— Stones in rivulets. P. 1—12. *Dill.* 10. 16.
12. T. Dark green, tender, curled (without any visible roots), on the ground. With. Ulva *Lactuca.* Huds. Ulva *crispa.* Lightf. *cris'pa.*
—— Bottom of walls. — 11—2. *Dill.* 10. 12.
13. T. Tubercled, solid, wrinkled. (Bright green. Huds.) *verruco'sa.*
—— Stones in limpid brooks. P. 1—12. ——

hemisphæ'rica. 14. T. Hemispherical, scattered. (Bright green, ½ to 1½ line in diameter.)
—— On submarine rocks. P. 1—12. *Weig.* 2. 3.

diffor'mis. 15. T. Roundish, sinuated, difform, gelatinous (dull green).
—— On Fuci, Confervæ, and submarine rocks.

cornu'ta. 16. T. Somewhat rigid, (pale green) horned, growing on the ground. Ulva *cornuta.* Lightf. With.
—— On Enfield Chace, &c. — 3. 4. *Dill.* 10. 13.

Obs. Though Withering has not removed this species, he thinks Dillenius right in considering it as a Tremella.

incrassa'ta. 17. T. Gelatinous, flat, sinuato-dentate, green, margin thickened. Ulva *incrassata.* Huds. With.
—— Edges of small ditches. A. 3—10. *Dill.* 10. 10.

pisifor'mis. 18. T. Globular, solitary, spongy, brownish, or brown green. Ulva *pisiformis.* Huds. With.
—— Ditches. A. 3—8. ——

prunifor'mis. 19. T. Somewhat globular, solitary, succulent within (green). Ulva *pruniformis.* Lin. Huds. With.
—— Ditches and pools. A. 5—10. *Weig. obs.* 2. 4.

purpu'rea. 20. T. Somewhat globular, sessile, solitary, smooth. Sphæria *miniata.* Bolt. Sph. *Tremelloides.* With.
— On rotting sticks. 9—5. *Bolt.* 127. 1. *Dill.* 18. 6.

Obs. It is very small, scarcely a line in diameter, turbinate, pinky, red, or purplish.

viola'cea. 21. T. Violet-coloured, wrinkled, smooth underneath. Ray syn. 22. 4.
—— On rails after rain in Dec. *Bull.* 499. 5.

sarcoi'des. 22. T. With. See Helvella *sarcoides.*

amethysti'nea.

1206. Ul'va. *Fructifications* in a transparent membrane. (*Frond* membranous, or gelatinous. *Seeds* solitary, scattered throughout its substance, under the cuticle. Smith. Gooden. and Woodw.

Synoptical Table of the Subdivisions.

1. *Membranous, fructific. hitherto unknown.*
   - A. Frond, flat, entire.
   - B. Frond flat, perforated.
   - C. Frond tubular, wrinkled.
   - D. Frond cellular.
   - E. Frond plaited.

2. *Membranous, fruit-bearing.*

3. *Gelatinous, frond cylindrical, or compressed.*

4. *Somewhat gelatinous, frond cylindrical, tubular.*

Obs. I have adopted the arrangement given by Mr. Woodward in an excellent paper in the 3d vol. of the Lin. Trans., and have exhibited the whole of his subdivisions, although in Div. 1. B. and D. we have no British species.

1. *Membranous, fructific. hitherto unknown.*

A. Frond flat, entire.

1. U. Flat, orbicular, sessile, peltate, coriaceous (dull brown, or purple). *umbilica'lis.*
Navel Laver. Rocks, &c. P. 1—12. *Dill.* 8. 3.

2. U. Oblong, flat, undulated, membranous, green. *latis'sima.*
—— Rocks and stones in the sea. A. 5—10.

3. U. Somewhat ensiform, flat, undulated, membranous, brown. HUDS. *fus'ca.*
—— Rocks and stones in the sea. A. 5—10. —

4. U. Lanceolate, flat. (Ovato-lanceolate, pale-green.) *lanceola'ta.*
— Rocks in the Isle of Man. P. 1—12. *Dill.* 9. 5.

5. U. Palmate, proliferous, membranous, segments narrowed downwards. *lactu'ca.*
Oyster-green. Submarine rocks. A. 9—5. *Dill.* 8. 1.

C. Frond tubular, wrinkled.

6. U. Tubular, (mostly) simple. (Membranous, green. HUDS.) *intestina'lis.*
—— In ditches. A. 3—10. *Dill.* 9. 7.

Obs. The genus Ulva is confined to marine plants in this arrangement, with the single exception of this species.

7. U. Tubular, branched, compressed (green). *compres'sa.*
—— Rocks, &c. A. 1—12. *Dill.* 9. 8. & 10. 8.

E. Frond plaited.

8. U. Frond oblong, bullate (bright green, doubled lengthways). *Lin'za.*
—— Stones. P. 1—12. *F. Dan.* 889. *Dill.* 9. 6.

2. *Membranous, fruit-bearing* (punctata).

9. U. Flat, reniform, sessile, striated crosswise. *pavo'nia.*
—— Rocks, &c. P. 1—12. *H. ox.* xy. 8. 7.

palma'ta. 10. U. Frond palmate, flat (green or reddish). With. Fucus *palmatus*. Lin. Huds. Lightf. Gooden. and Woodw. Stackh. See F. *palmatus*.

atoma'ria. 11. U. Frond membranous, flat (dilated), palmate, (olive brown) segments linear, somewhat branched, mostly ciliate. Woodw. Lin. Tr. iii. p. 53.
—— Beach at Yarmouth. Mr. Wigg. *E. Bot.* 419.

Obs. The seeds are of a darker colour, and are disposed in transverse concentric lines. Woodw.

ligula'ta. 12. U. Fronds membranous, flat, branched, (bright-red) branches dilated, mostly dichotomous, ligulate, angles of the forks rather obtuse. Woodw. Ibid.
— Beach, Yarmouth. Rocks at Cromer. *E. B.* 420.

Obs. The Fructific. are minute dark red grains, solitary, but thickly scattered under each surface of the frond. Woodw.

coccin'ea. 13. U. Flat, roundish, membranous, sinuated, scarlet. Huds.
—— Submar. rocks, &c. Plymouth, &c. P. 1—12.

lacinia'ta. 14. U. Leaves flat, purple, dilated at the ends, laciniated, undulated. (Seeds like grains of red powder.) Lightf.
—— Sea shore on the coast of Jura. — 8. —

dichot'oma. 15. U. Flat, dichotomous, green. Huds.
—— Rocks and stones, coast of Devon. A. 1—12.

3. *Gelatinous, frond cylindrical, or compressed, entire* (defracta, elminthoides).

ru'bra. 16. U. Filiform, dichotomous, red. Huds.
—— Stones in the sea, near Christ-church. Hants.

diaph'ana. 17. U. Pale, diaphanous, nearly cylindrical, branched, branches very short, rather acute. Huds.
— Rocks & stones in the sea. P. 1—12. *Park.* 1304.

Obs. The colour varies from pale brown to clear yellow.

flaves'cens. 18. U. Somewhat cylindrical, rather branched, yellowish, branches very short, obtuse. Huds.—A var. of the preceding?
—— Rocks in the sea. P. 1—12. *E. Bot.* 263. ?

4. *Somewhat gelatinous, frond cylindrical, tubular.*

purpuras'cens. 19. U. Very much branched, nearly cylindrical, (purplish, or pinky) branches opposite, acute. Hud.
— Rocks in the sea, near Christ-church. A. 3—

20. U. Gelatinous, tubular, uniform, simple (brownish, 3 inch. in length, as thick as pack-thread). Huds. *fistulo'sa.*

—— On Fuci and stones in the sea. A. 5—9.

21. U. Gelatinous, filiform, (brownish-red) branched, branches lineari-lanceolate, pinnate, shining. Huds.——Is it a Conferva? *plumo'sa.*

—— Submar. rocks, near Exmouth. P. 4—10.

Obs. The following British plants, which have been considered as species of Ulva, are omitted in the above arrangement.

22. U. Filiform, unbranched, diaphanous, viscid. (Seeds numerous, minute, giving an almond-blossom colour to the whole plant, afterwards orange-coloured.) With. *Plate* 18. *defrac'ta.*

—— Beach at Weymouth. Maj. Velley. 6.

23. U. Filiform, entire, or but little branched, opake, slippery (brownish), end rather obtuse. *elminthoi'des.*

—— Rocks. M. Velley 6. 7. *With.* 17. 2.

Obs. The above two species were at first considered as Fuci by M. Velley and Dr. Withering; but they are both referred to Ulva by the latter in the 3d ed., and Gooden. and Woodw. are of opinion that the fructification is that of the latter genus.

24. U. Frond dichotomous, membranous, transparent; segm. broad, uniform, bluntly forked. Fructif. in patches, tuberc. crowded, round, smooth, without pedunc., dark red. Stackh. Lin. Tr. vol. 3. pag. 256. Fucus *punctatus.* With. *puncta'ta.*

—— At Weymouth. —9. ——

Obs. The fructif. is thought by Mr. Woodw. too regular as to situation on the frond for the genus Ulva; but since he and Dr. Gooden. have not given it a place amongst the Fuci, and Mr. Stackhouse has not admitted it into the Synoptical Table of the species of Fucus given in his second fasc., I have been induced to insert it in this place.

25. U. Stipe and primary branches of equal thickness, broadest at the origin of the branches, ultimate branches very numerous, of equal thickness, filled with closely set verticils of fructifications. With. *verticilla'ta.*

—— Sea coast. Major Velley. ——

Obs. Its fine branches and pink colour give it a good deal of the appearance of Conferva *corallina.* See Withering.

granula'ta. 26. U. Spherical, aggregate. Lin. sp. pl. not Syst. veg. See Tremella *granulata.*

cornu'ta. 27. U. Somewhat rigid, horned, growing on the ground. Lightf. See Tremella *cornuta.*

incrassa'ta. 28. U. Flat, sinuato-dentate, green, thicker at the margin. Huds. See Tremella *incrassata.*

pisifor'mis. 29. U. Globular, solitary, spongy, brownish. Huds. See Tremella *pisiformis.*

prunifor'mis. 30. U. Somewhat globular, solitary, succulent within (green). Lin. See Tremella *pruniformis.*

Obs. It is on the authority of Mr. Woodward that the above five species are removed to the genus Tremella. See Lin. Trans. Vol. 3.

articula'ta. 31. U. Tubular, jointed, very much branched (purple), branches opposite, dichotomous. Huds. See Fucus *articulatus* and *Opuntia.*

capilla'ris. 32. U. Gelatinous, filiform, very much branched, pale, branches alternate, capillary acute. Huds. See Fucus *tenuissimus.*

ru'bens. 33. U. Gelatinous, filiform, very much branched, reddish, branches scattered, horizontal, obtuse. Huds.

—— Rocks, &c. in Portland Island. A. 5—10. —

filifor'mis. 34. U. Gelatinous, filiform, very much branched, purplish, branches scattered, distant, very long. Huds.

—— Rocks in the sea, near Christ-chur. A. 4—9.

Obs. U. *filiformis* and *rubens* are either known or with good reason supposed to belong to the genus Fucus. Woodw.

monta'na. 35. U. Flat, coriaceous, growing on the ground, blood-coloured. Lightf.

—— Moss on the sides of mount., Isle of Skye. 8.

Obs. A further examination of this plant is necessary in order to determine to what genus it ought to be referred.

confervoi'des. 36. U. Filiform jointed, joints alternately compressed. See Conferva *tubulosa.*

1205. Fu'cus. Male. *Vesicles* with soft hairs interwoven.

Fem. *Vesicles* sprinkled with immersed grains, rather prominent at the top. *Seeds* solitary.

(*Seeds* produced in crowded tubercles opening at the summit. Goodenough and Woodw.)

Obs. The tubercles are variously disposed, being either imbedded in the substance of the frond, and becoming swollen as in *serratus*, &c.—or assuming a broad warty form as in *laceratus*, &c.—or imbedded, smooth, and like vesicles, as in *crispus*, &c.—or projecting very much from the frond, as in *confervoides*—or situated in a peduncled capsular processs, as in *siliquosus*, *pedunculatus*, &c. See Lin. Trans. iii. p. 94. From this difference in the situation, and appearance of the fructifications, Mr. Stackhouse has been induced to arrange the species of Fucus under six genera with the subjoined names and characters, viz.

FUCUS. *Fructif.* a jelly-like mass, with imbedded seed-bearing granules, and external conical papillæ; terminating.

CERAMIUM. *Fructif.* a jelly-like mass, without the seed-bearing granules; internal, universal; papillæ invisible.

CHONDRUS. *Fructif.* an ovate rigid imbedded pericarp, containing seeds in a clear mucus, and prominent in either surface.

SPHÆROCOCCUS. *Fructif.* external globular pericarps, adnate, or immersed; sessile or peduncled, containtaining seeds as above.

CHORDA. *Fructif.* a mucous fluid in the hollow part of a cylindrical frond, with naked seeds affixed inwardly.

CODIUM. *Fructif.* invisible, frond roundish; soft and spungy when wet, velvety when dry.

As it appears to me doubtful whether any advantage can be derived in the investigation of the species from referring them to more than one genus, the arrangement of Goodenough and Woodward (which is nearly the same as Hudson's), and also the characters, &c. of the species as given in a valuable paper inserted in the 3d vol. of the Lin. Trans., are here adopted.

SYNOPSIS of the DIVISIONS.

1. *Leaves distinct.*
2. *Leaves united.*
3. *Winged, or frond flat, stipe running through the middle of the leaf.*
4. *Frond flat, ribless.*
5. *Frond ribless, channelled on one side.*
6. *Frond compressed.*
7. *Frond cylindrical.*

1. *Leaves distinct.* (Kaliformis.)

na'tans. 1. F. Stem cylindrical, very much branched, leaves lanceolate, serrated, vesicles globular, pedunc. led. Lin. Huds. With.

—— Sea shores. P. 1—10. *Ger.* 1615. 2.

Obs. The colour of the plant, when fresh, is yellowish; when dried, purple or blackish.

sanguin'e-us. 2. F. Stem cylindrical, branched, leaves simple, ovato-oblong, obtuse, undulated, very entire (red). (Minute spherical tubercles, peduncled, blackish-purple, on the petioles, rarely on the ribs of the leaves.) Lin. Huds. Lightf. With.

—— Rocks, &c. in the sea. P. 1—12. *Stackh.* 7.

sinuo'sus. 3. F. Stem cylindrical, branched, leaves oblong, undulated, (pale pink) branched-sinuated, thorny-toothed. F. *rubens.* Huds. Lightf. With. not of Lin.

—— Sea coasts. P. 1—12. *Stackh.* 7. *F. Dan.* 652.

Obs. It varies very much in its appearance at different periods of its growth. G. & W.

Var. 2. Leaves somewhat cartilaginous, toothed.

—— Cromer on the coast of Norfolk.

Hypoglos'-sum. 4. F. Stem winged (in the younger plants), branched, leaves lineari-lanceolate, flat, very entire, proliferous from the mid-rib, lateral nerves none. (Small red tubercles situate on the rib, or very minute red granules disposed on the membrane on each side of the rib. A distinct species?)

—— On submarine rocks. — *Lin. Tr.* ii. p. 30. t. 7.

ova'lis. 5. F. Stem cylindrical, branched, rather rigid, leaves oval, fleshy. Huds. (Small tubercles, blackish red, scattered chiefly in the lower leaves, projecting.)

—— Sea rocks, &c. A. 5—10. *Jacq. Coll.* iii. 13. 1.

sedoi'des. 6. F. Stem cylindrical branched, tender, branches dichotomous, leaves cylindrical, attenuated towards each end, upper ones crowded. (Tubercles very numerous and minute, bright red, situate chiefly on the upper leaves.) F. *vermicularis.* Lightf. (F. *sedoides.* Stackh. *Plate* 12.)

—— Yarmouth. *Reaumur Act. Gal.* 1712. t. 4. f. 8.

dasyphyl'-lus. 7. F. Stem cylindrical, branched, branches filiform, nearly simple, leaves cylindrical, obtuse, atten-

uated at the base, scattered. (Frond red, tubercles very minute, very red, scattered, situate on the lower part of the branches, more rarely on the leaves).

—— On rocks and stones. *Lin. Tr.* ii. 23. 1.

8. F. Stem cylindrical, branched, membranous at the apex, dilated, dichotomous, leaves nerveless, mostly 2-lobed (red); tubercles peduncled (full of red seeds, on the sides of the branches). *membrani-fo'lius.*

—— Sea rocks. —— *Lin. Tr.* iii. t. 16. f. 1. 2.

Var. 2, *radicans*. Leaves thicker at the base, of a blood-colour.

—— 3. *lacer*. Leaves equal, somewhat linear. F. *ceranoides* γ. Huds. Lightf.

—— 4. *fimbriatus*. Leaves ciliate. Huds. With.

— Portland Island. P. 1—12. *Gmel. fuc.* 20. 2.

2. *Leaves united.*

9. F. Frond flat, ribless, somewhat tripinnate, (green) branches and branchlets two-rowed, leaves lineari-lanceolate, thorny-toothed. Lightf. With. F. *herbaceus*. Huds. *ligula'tus.*

—— Sea shore. P. 1—12. *Lightf.* pl. 29.

10. F. Frond compressed, branched, leaves 2-rowed, alternate, oblong, vesicles peduncled, oblong, jointed, mucronate. (Fructif. in lanceolate solid processes studded with clusters of seeds.) Lin. Huds. Lightf. With. E. Bot. Stackh. *pl.* 5. *siliquo'sus.*

—— Sea rocks. P. 1—12. *Gmel.* 2. *E. Bot.* 474.

11. F. Frond filiformi-compressed, pinnate, extreme branchlets vesicular, vesicles terminated by leaflets many-parted, obtuse. Lin. Huds. *Abrot'anifo'lius.*

—— British coast, by Loefling. — *Herbar. Lin.*

Obs. The colour of the fresh plant, olive; of the dried, black.

12. F. Frond filiform, very much branched, extreme branchlets tubercled, tubercles heaped together, terminated by a subulate leaflet. F. *foeniculaceus*. Huds. With. *barba'tus.*

— Rocks. P. 1—12. *Gmel.* 2. A. f. 2. *Ger.* 1573. 7.

Obs. When fresh, yellowish, or reddish yellow; when dried, very black.

13. F. Frond filiform, very much branched (blackish), leaves subulate, terminating ones crowd- *ericoi'des.*

ed, closely imbricated, tubercle-bearing at the base. (Tubercles about twice as large as the leaves.) F. *tamariscifolius*. Huds. With.

—— Submarine rocks. P. 1—12. *Stackh.* 11.

granula'tus. 14. F. Frond filiform, very much branched, weak, leaves subulate, loosely imbricated; tubercles at the base, contiguous.—Lin.

—— Sea coast, at Yarmouth. — *F. Dan.* 591.

Obs. Olive-coloured when fresh, black when dried.

selaginoi'des. 15. F. Frond filiform, flexuose, very much branched, (yellowish when fresh), leaves subulate, rather remote, vesicles at the base of the upper leaves (more than four times as large as the leaves).—Lin.

—— Sea shore. — 6. 7. *Gmel.* 2. A. f. 1.

Obs. F. *ericoides*, *granulatus*, and *selaginoides* are so much alike that very great attention is necessary to dis inguish them.—*Ericoides* is of low stature, erect like a little shrub, and very bushy, and the tubercles are clustered at the ends of the branchlets like grapes.—*Granulatus* and *selaginoides* are taller and more infirm. *Selaginoides* has its tubercles solitary and rather distant, at the base of the leaves of the extreme branches, but *granulatus* has them contiguous and set closely all along the extreme branches, and part of the larger branches. The leaves in all are subulate and acute, but in *selaginoides* they are four times larger than the tubercles, in *ericoides* twice as large, and in *granulatus* not much larger. See Lin. Trans. vol. iii. p. 132.

foenicula'ceus. 16. F. Frond filiform (brownish), very much branched, branches somewhat dichotomous, leaves subulate, equal, vesicles oblong, concatenated, innate.—Lin. F. *concatenatus*. Huds. Lightf. With.

—— Weymouth. — 6. 7. *Herb. Lin. Velley* 2. f. 1.

fibro'sus. 17. F. Frond filiform, very much branched (yellowish olive), primary branches somewhat two-rowed, leaves filiform and linear, vesicles roundish, innate.—Huds. With. F. *setaceus*. Huds. With. is *fibrosus* in a young state. *Stackh.* 13.

— Ilfracombe. P. 1—12. *H. ox.* iii. p. 648. t. 8. f. 17.

3. *Winged, or frond flat, stipe running through the middle of the leaf.* (dentatus, rubens.)

tetrago'nus. 18. F. Frond simple, ensiform, the base rounded, stipe four-cornered.

—— Isle of Man. —— *Gmelin.* 29. f. 1.

te'res. 19. F. Frond simple, ensiform, the base attenuated,

stipe cylindrical, rather compressed. F. *esculentus.* Lightf.

—— Rocks near Holyhead. —— *Lightf.* 28.

Obs. Linnæus included both these species under F. *esculentus.*—However there are so many points in which they differ that they have been separated by Goodenough and Woodw., and have been named from the leading mark, viz. the squareness or roundness of the stipe, when it has become the mid-rib. See Lin. Tr. vol. iii. p. 141.

20. F. Frond membranous, very tender, branched, somewhat dichotomous. LIN, HUDS. LIGHT. WITH. *alatus.*

—— Submarine rocks. P. 5—10. *F. Dan.* 352.

Obs. It is of a beautiful colour, sometimes green with a red mid-rib, sometimes wholly red.

21. F. Frond dichotomous, serrato-dentate (cartilaginous, olive), extremities flat, tubercled, obtuse. (Root with nerves or fibres standing out above the surface of the callus.)—LIN. HUDS. LIGHTF. WITH. *serratus.*

—— Rocks in the sea. P. 1—12. *Stackh.* 1.

22. F. Frond dichotomous, very entire. (cartilaginous, olive), vesicles innate, and axillary, extremities tumid, tubercled, rather acute. LIN. HUDS. LIGHTF. WITH. *vesiculosus.*

—— Rocks in the sea. P. 1—12. *Stackh.* 2.

Var. 2. *Divaricatus.* Vesicles axillary, dilated, axillæ diverging. F. *vesiculosus* γ. Huds. With. F. *divaricatus.* Lin. Lightf. —— *H. ox.* iii. 15. 8. 5.

—— 3. *Inflatus.* Frond towards the extremity vesiculoso-inflated. F. *inflatus.* Lightf.

— *Smith. Icon. Plant. rar. fasc.* 3. t. 75.

—— 4. *Acutus.* Frond with the extremities lengthened out, lanceolate.

—— 5. *Foliaceus.* Branches proliferous, branchlets obovate.

—— 6. *Volubilis.* Frond twisted. F. *volubilis.* Huds.

— Near Fam-bridge ferry, Essex, &c.

23. Frond flat, dichotomous, equal, (membranous, olive), extremities tumid, tubercled, obtuse. (Vesicles none.) *spiralis.*

Var. 1. *Undulatus.* Branches with the margin rather undulated, the ends very obtuse.—LIN. HUDS. LIGHTF.

—— Rocks in the sea. — *F. Dan.* 286. *Stackh.* 5.

Var. 2. *Integer.* Branches with the margin very entire, the ends ovate, rather obtuse.—F. *vesiculosus* β. Huds. With. *H. ox.* 3. 15. 8. 10.

ceranoi'des. 24. F. Frond flat, dichotomous, very entire, equal (olive), extremities rather tumid, tubercled, lanceolate.—Lin. F. *linearis.* Huds. F. *distichus.* Lightf. With.

4. *Frond flat, ribless.*

sacchari'nus. 25. F. Frond simple, ensiform (dirty green).
—— Rocks in the sea. P. 1—12. *Gmelin.* 28.
Var. 2. *Bullatus.* Frond bullate, with undulated margins.—*Gmel.* 27. *Stackh.* 9.

digita'tus. 26. F. Frond palmate, segments ensiform (dirty green), stalk cylindrical, root fibrous.—Huds. Light. With.
—— Sea girdles. Stones, &c. P. 1—12. *Stackh.* 3.

bulbo'sus. 27. F. Frond palmate, segments ensiform (dirty green), stalk flat, root inflato-bulbous.—Huds. F. *polyschides.* Lightf. With.
—— Coast of Cornwall, &c. P. 1—12. *Stackh.* 4.

Obs. In F. *digitatus* the stalk is round, in *bulbosus* perfectly flat, in *digitatus* simple throughout, in *bulbosus* inflated at the base. See Lin. Tr. P. 154.

lacera'tus. 28. F. Frond membranous, very tender, branched, branches and branchlets nearly linear, obtuse at the end (red). F. *endiviæfolius.* Lightf. F. *crispatus.* Huds. With.
—— Rocks, &c. in the sea. —— *Gmelin.* 21. f. 4.
Var. 2. *Papyraceus.* Branches and branchlets more slender, somewhat sinuated (red).
— Ilfracombe, Devonshire. ——
—— 3. *Laciniatus.* Branches dilated, palmate, branchlets nearly linear (red). Huds. Lightf. With.

Obs. All of them vary in their margins, being crispo-undulated, laciniated, and entire.

denta'tus. 29. F. Frond membranous, very tender (red), branched, alternately pinnatifid, branchlets linear, incised at the end, segments acute.—Lin. Huds. Lightf. With.
—— Rocks in the sea. A. 5—10. *H. ox.* 15. 8. 5.

bif'idus. 30. F. Fronds membranous, dilated, bifid, segments diverging, obtuse, tubercles marginal, distant.—Huds. With.
—— Sea rocks. A. 5—10. *Lin. Tr.* iii. t. 17. 1.

Obs. The fructif. consists of very small spherical tubercles, partly immersed in the margin of the frond, and projecting rather more than half their diameter, dark purple, always solitary, and considerably distant. The plant is of a pale purplish red, extremely thin and delicate, the tubercles dark purple, almost black when ripe. See Lin. Tr. iii. p. 160.

31. F. Frond somewhat membranous, branched (red), branches lanceolate, acute, ciliate, cilia simple, short.—Huds. Lightf. F. *lanceolatus*. With. vol. iv. p. 104. *cilia'tus.*
— Rocks in the sea. A. 4—9. *Gmel.* tab. 21. 1. 2. 3.
Var. 2. Branches nearly linear. Lightf. 946.

Obs. This species includes three of Gmelin, viz. *ciliatus*, *ligulatus*, *holosetaceus*.

32. F. Frond membranous (red), branched, branches lanceolate, acute, ciliate, cilia branched. A var. of F. *ciliatus?* (*Stackh.* t. 11.) *juba'tus.*
—— Rocks at Ilfracombe. *Lin. Tr.* iii. 17. 2.

33. F. Frond membranous, variously divided, palmate (red). Huds. Lightf. (Stack. *tab.* 12.) Ulva *palmata*. With. See U. *palmata*. P. 312. *palma'tus.*
—— *Dullesh.* Rocks. — *Lightf.* 27. *Gmel.* 26.

Obs. This plant varies extremely in its texture and branches. Its fructification also differs, sometimes consisting of numerous solitary grains when it might be taken for a species of Ulva; at other times of tubercles imbedded in the frond, and opening at the top, especially in the coriaceous plants. See Lin. Tr. iii. 164.

34. F. Frond somewhat membranous, dichotomous (blood-colour), branches proliferous, linear, branchlets dilated at the end, bifid, segments rather acute.—Lin. F. *crispus*. Huds. F. *prolifer*. Lightf. With. *ru'bens.*
—— Submarine rocks. P. 1—12. *Lightf.* 30.

35. F. Frond cartilaginous (yellowish, olive, or olive-red), branched, branches spreading, somewhat bipinnatifid, branchlets obtuse, callous.—— Huds. Light. With. V. 4. 106. and F. *multifidus*. Huds. *pinnatif'idus.*
—— Rocks. —— *Stackh.* 11. *Gmel.* 16. 2. 3.

Obs. F. *Osmunda* and *pinnatifidus* are made distinct species by Mr. Stackhouse, with the annexed char. "F. *Osmunda*. Frond cartilaginous compressed, trebly pinnate, segm. callous, blunt, (Larger, not matted, colour dark transparent purple; taste and smell not peppery.) F. *pinnatifidus*. Frond narrow, compressed, branches some-

what alternate, diverging, with short obtuse callous shoots. (Smell and taste strong, aromatic.)

Var. α. Irregular, straggling, about three inches high, parasitical, on the stems of the larger Fuci.

—— β. Scarcely an inch high, creeping like a Lichen, and covering the rocks in broad patches. The species and var. are figured. Pl. 11.

cris'pus. 36. F. Frond somewhat membranous, dichotomous, branches entire; tubercles solitary, scattered (smooth; vesicular towards the summits of the frond.)—Lin. With. V. 4. p. 106. F. *ceranoides.* α. β. δ. Huds. α. β. Lightf.

Var. 1. *Brunneus.* Membranous, branches dilated, crispo-undulated, segments rather obtuse. F. *membranifolius* Var. 1. With. —— *Gmelin.* 7. f. 1. *Herbar. Lin.*

—— 2. *Virens.* Membranous, branches dilated, flattish, segments acute, longish. *Pet.* 20. 3. 4. (F. *crispus* β. Stackh. *Pl.* 12.)

—— 3. *Stellatus.* Somewhat membranous, branches dilated, crispo-undulated at the end, segments numerous, crowded, shortish. (F. *stellatus.* Stackh. With. *Stackh.* 12.)

—— 4. *Æqualis.* Membranous, all the branches equal, linear, flat, segments obtuse.

—— 5. *Compressus.* Somewhat cartilaginous, below somewhat compressed, branches rather linear, flat, segments rather elongated, acute. F. *filiformis?* Huds. *Pet.* 20. 5. *Gmel.* 7. 3.

5. *Frond ribless, channelled on one side.*

Obs. This division is made by Gooden. and Woodw. in addition to those of Huds.—It comprehends a number of species which are not flat, but channelled on one side. This appearance (which is constant) does not arise from a groove made in the solid substance of the plant, but rather from the margins being contracted and turned in. See L. Tr. iii. 173.

canaliculatus. 37. F. Frond dichotomous, linear, extremities obtuse, tubercled. (Plant cartilaginous, yellow olive.) Lin. Syst. Veg. Huds. Lightf. With. F. *excisus.* Lin. sp. pl.

—— Rocks and stones. P. 6. 8. *F. Dan.* 214.

pa'tens. 38. F. Frond dichotomous, linear (mostly brown), extremities rather obtuse, flat, tubercles rather globular, scattered.

—— At Ilfracombe, Devonshire, and in Cornwall.

39. F. Frond dichotomous (reddish, or brown), branches dilated above, on both sides bearing nipple-like tubercles, extremities acute. F. *canaliculatus* β. Huds. F. *ceranoides* ε. Lightf. —— Rocks in the sea. —— *H. ox.* 15. 8, 13. *mammillo'sus.*

Var. 2. Frond narrow, linear, extremities rather acute. F. *ceranoides* ζ. Lightf. —— Near Hastings.

6. *Frond compressed.* (Opuntia.)

40. F. Frond dichotomous, acute, smooth (olive), tubercled on both sides. Lin. Huds. Light. With. *lo'reus.*

Sea Thong. Rocks. P. 6—9. *Stack.* 10. *Ger.* 1568. 5.

Var. 2. *Inæqualis.* Frond flat, broader, unequal, angles of the fork more obtuse.

Obs. It resembles a Peziza standing on a short thick pedunle; from the centre of which the frond arises, resembling exactly in substance a leather thong, dichotomous, ribless.

41. F. Frond somewhat cartilaginous (olive-green), very much branched, toothed, teeth marginal, subulate, erect. Lin, Huds. Lightf. With. —— Sea rocks. P. 5—10. *Stackh.* 8. *F. Dan.* 355. *aculea'tus.*

42. F. Frond cartilaginous (red), very much branched, branches broader, alternate, branchlets opposite, diverging, ascending, obtuse. Huds. With. —— Rocky shores, Exmouth. — *Gmel.* 18. 3. *cor'neus.*

Var. 2. *Filicinus.* Frond slender (almost capillary, deep red), branchlets horizontal, very obtuse. F. *filicinus.* Huds. With. F. *nereideus.* Lightf. (F. *corneus.* Stackh. *Pl.* 12.)

—— 3. *Pinnatus.* Frond slender (pale red), branchlets spreading, rather obtuse. F. *pinnatus.* Huds. With.

—— 4. *Uniformis.* Frond slender (deep red), branches and branchlets attenuated at the base, spreading, obtuse.

Obs. If the limits of these varieties could be ascertained, the circumstance of their growing in very distant situations, and detached from each other is a strong argument in favour of their being made distinct species.

43. F. Frond cartilaginous (dark purple), dichotomous, branched, branches equal, acute, thorny-toothed, tuberc. globular, lateral, sessile. Lin. — Coast of Cornw. Wenman. *Lin. Tr.* iii. 17. 3. 4. *gigarti'nus.*

coronopifolius. 44. F. Frond cartilaginous, very much branched (red purple), branchlets obtuse, many-cleft, rather crowded, tubercles globular, pedunnled and sessile. F. *coronopi facie.* Ray. F. *cartilagineus?* With.

— Shores of Devons. *Pctiv.* 25. 3. *Herb. Pud.* 12. 1.

coccineus. 45. F. Frond somewhat cartilaginous (fine red), very much branched, branchlets subulate, 1-rowed, tubercles globular, nearly sessile. Huds. With. Lightf.

—— Rocks, &c. P. 6—10. *Gmel.* 153. t. 16. 1.

plumosus. 46. F. Frond somewhat cartilaginous (purple), very much branched, branches more than bipinnate, branchlets opposite, tubercles globular, pedunculed. Lin. Huds. Lightf. With.

—— Sea rocks. P. 8—10. *Stackh.* 13. *F. Dan.* 350.

nodosus. 47. F. Frond somewhat dichotomous (cartilaginous, olive), leaves two-rowed, obovate, very entire, vesicles innate, solitary, broader than the frond. Lin. Huds. Lightf. With.

—— Sea rocks. P. 5—10. *F. Dan.* 146. *Stackh.* 10.

obtusus. 48. F. Frond cartilaginous, very much branched (purplish), branches and branchlets nearly opposite, rather erect, very obtuse, truncated. Huds. With.

—— Stones in the sea. — 5—10. *Velley.* 3.

lichenoides. 49. F. Frond dichotomous (olive or blackish), branched, branches dilated at the end, tubercles globular, terminating. F. *pygmæus.* Lightf. With. F. *pumilus.* Huds.

—— Rocks, &c. in the sea. P. 6—10. *Lightf.* 32.

Obs. This little Fucus is very much like a Lichen, its fructif. is generally a small round smooth tubercle, opening more or less at the top, occasionally there are minute granulations on its surface.

7. *Frond cylindrical.* (aculeatus.)

filum. 50. F. Frond filiform, simple (olive green when fresh), rather brittle. Lin. Huds. Lightf. With. *Sea Laces.* Sea rocks. P. 1—12. *Stack.* 10. *F. D.* 281.

tomentosus. 51. F. Frond filiform, very much branched, tomentous (green, membranous, tubular), branches dichotomous, extremities and angles obtuse. Huds. With.

—— Near Exmouth, &c. —— *Stackh.* 7.

Obs. As the fructif. has not yet been distovered, it remains very doubtful whether it may not be a species of Ulva.

52. F. Frond filiform (cartilaginous, reddish), dichotomous, jointed, branches diverging, diffuse, acute at the end. Huds.——Is it a Conferva? —— Rocks, &c. at Weymouth, &c. —— *diffu'sus.*

53. F. Frond filiform, dichotomous (olive), branches unequal, obtuse, tubercular at the end, angles of the ramifications obtuse. Huds. F. *bifurcatus*, With.
—— Rocks at Ilfrac. P. 6—10. *With.* Pl. 17. 1. *tubercula'tus.*

54. F. Frond filiform, dichotomous (dark olive), very much branched, branches fastigiate, obtuse, angles of the ramifications nearly right.
—— Sea rocks. P. 6—10. *Stack.* 6. *F. D.* 393.
Var. 2. *interceptus.* All the last forks with joint-like rings. —— At Cromer. —— *fastigia'tus.*

55. F. Frond filiform, dichotomous (purple), branched, branches nearly equal, acuminate, angles of the ramifications rather obtuse, tubercles lateral. F. *rotundus.* Gmel. With.
—— Stones in the sea, at Cromer. — *Gmel.* 6. 3. *radia'tus.*

56. F. Frond filiform, dichotomous (dark red), branched, branches nearly equal, acuminate, angles of the ramifications acute. F. *fastigiatus.* Huds. Lightf. With. F. *furcellatus.* Huds. Lightf.
—— Sea shores. —— *Stackh.* 6. *Gmel.* 6. 1. *lumbrica'lis.*

57. F. Frond filiform, somewhat gelatinous, tubular (pale red), very much branched, branches scattered, branchlets nearly verticillate, subulate, rather obtuse. F. *verticillatus.* Lightf. With.
—— At Weymouth. —— *Lin. Tr.* iii. 18. *Kalifor'mis.*

Obs. The fructif. consists of minute spherical tubercles, dark red, and sessile on the sides of the branches or branchlets.

58. F. Frond filiform (purplish), branched, branches somewhat 2-rowed, nearly simple, setaceous, tubercles lateral, semi-globular. Lin. With. F. *verrucosus.* Huds. F. *flagelliformis.* Light.
—— Rocks in the sea. P. 6—10. *Stackh.* 8. *confervoi'des.*

59. F. Frond filiform, somewhat dichotomous (pale whitish, or brownish, rarely purplish), very much branched, branches nearly one-rowed, tubercles lateral, roundish, depressed. Huds. With.
— Rocks on the South coast. P. 6—10. *Gm.* 14. 1. *al'bidus.*

subfus'cus. 60. F. Frond filiform (brownish), very much branched, branches scattered, branchlets subulate, nearly alternate, tubercles racemous, about eight-seeded.—Woodw. in Lin. Tr. i. 131. With.

—— Submarine rocks. A. Winter. *Lin. Tr.* i. 12.

pedunculatus. 61. F. Frond filiform (yellow olive), pinnate-branched, branches setaceous, simple, nearly 2-rowed, tubercles oblong, peduncled, scattered. Huds. With.

—— Rocks, &c. Portland Island. A. 7—10.

asparagoi'des. 62. F. Frond filiform, very much branched (bright red), tubercles globular, peduncled, branchlets subulato-setaceous, alternately opposite. Woodward in Lin. Tr. ii. 29.

—— Stones in the sea, at Cromer. *Lin. Tr.* ii. 6.

Obs. It differs from *pedunculatus*, by being very much branched, by the shape of the tubercles, which alternate with the setaceous branchlets, and by its bright red colour. It is easily distinguished from *tenuissimus* by its peduncled tubercles, subalternate branches, and by its colour, the colour of the latter being whitish.

tenuis'simus. 63. F. Frond filiform (pale whitish), very much branched, all the branches capillary, alternate, branchlets acute, tubercled.—With. Ulva *capillaris.* Huds.

—— Stones, and Fuci. Summer. *Lin. Tr.* iii. 19.

articula'tus. 64. F. Frond membranous, filiformi-tubular, with chain-like joints (pale red, or purplish, sometimes olive green), very much branched, branches uniform, dichotomous and verticillate. Lightf. With. Ulva *articulata.* Huds.

—— Stones, &c. A. 3—11. *Stackh.* 8. a. b.

Obs. F. *repens* of Lightf. is only a young, or dwarf plant of this species.

Opun'tia. 65. F. Frond cartilaginous, somewhat compressed, solid, with chain-like (oval) joints (red, or purple, sometimes greenish), branched, branches uniform, dichotomous. Ulva *articulata* β. Huds. F. *repens.* With.

— Tenby, South Wales. — *Dill.* 10. 9. A. B. C. D.

variab'ilis. 66. F. Frond filiform, very much branched, branches somewhat imbricated, branchlets very short, fascicled, acute. F. *confervoides.* Huds. not Lin.

—— Yarmouth. P. 5—10. ——

Obs. The colour of the young plant is yellowish; of the old, black.

67. F. Frond filiform, very much branched (dark red), branchlets closely imbricated, subulate, somewhat two-rowed, incurved at the end, entire. F. *incurvus*. Huds. With. *pinastroi'des.*
—— Sea rocks, &c. P. 1—10. *Gmel.* 11. 1.

68. F. Frond filiform, nearly simple (brownish), branches subulate, somewhat branched, on every side imbricated, squarrose. Lin. *lycopodioi'des.*
—— Yarmouth. —— *F. Dan.* 357.

69. F. Frond filiform (purplish, or greenish purple), very much branched, branches setaceous, scattered, tubercles roundish, within the substance of the branchlets. Huds. With. F. *tuberculatus*. Lightf. *purpuras'cens.*
—— Rocks & stones in the sea. — *Velley* 2.?

70. F. Frond filiform (greenish brown), very much branched, branches alternate, branchlets capillary, involute at the end, tubercled.—With. F. *scorpioides*. Huds. *amphibi'us.*
—— Submar. rocks. P. 7. 9. *Ray syn.* t. 2. f. 6.
Var. 2. Branches thickish, rather erect.

71. F. Frond filiform, dichotomous (purplish, or yellowish), very much branched, equal, branchlets somewhat 1-rowed, tubercles lateral and terminating (very minute, dark purple). Huds. Lightf. With. *plica'tus.*
—— Rocks in the sea. A. 6—11. *Stackh.* 7.

72. F. Frond almost four-pinnate (pleasant red), branches and branchlets all alternate, the primary ones very long, the ultimate ones very short, fascicled, very slender. Conferva *byssoides*. Lightf. MSS. *byssoi'des.*
—— Isle of Sheppey, &c. ——

Obs. 1. To facilitate the investigation of this extensive and difficult genus, it has been thought advisable to give a Synopsis of the subdivisions employed by Dr. Withering.

A. *With bladders.* F. nodosus, vesiculosus, inflatus, natans, setaceus, tamariscifolius (ericoides G. & W.), fibrosus, fœniculaceus.

B. *Leaves pod-like.* F. siliquosus, *siliculosus.*

C. *Jointed, necklace-like.* F. concatenatus, kaliformis, verticillatus, articulatus, repens (Opuntia G. & W.).

D. 1. *Flat, mid-ribbed, opake.* F. serratus, spiralis, *angustifolius*, distichus.

2. *Flat, mid-ribbed, pellucid.* F. *membranaceus*, esculentus, sanguineus, rubens (sinuosus G. & W.), Hypoglossum, alatus.

E. 1. *Flat, ribless, opake.* F. Loreus, saccharinus, volubilis, polyschides, digitatus, ceranoides, stellatus, canaliculatus, pygmæus, *pusillus.*

2. *Flat, ribless, pellucid.* F. *phyllitis, edulis, punctatus,* ligulatus, dentatus, laciniatus (laceratus γ. G. & W.), bifidus, crispatus (laceratus G. & W.), endiviæfolius, lanceolatus (ciliatus G. & W.), holosetaceus, prolifer, fimbriatus, crispus, membranifolius (crispus α. & ε. G. & W.), pinnatifidus.

F. 1. *Cylindrical, opake.* F. lycopodioides, tomentosus, Filum, filiformis, bifurcatus (tuberculatus G. & W.), rotundus (radiatus G. & W.), fastigiatus, gigartinus, *nodicaulis,* diffusus.

2. *Cylindrical, pellucid.* F. dasyphyllus, ovalis (ovalis or sedoides G. & W.?).

G. 1. *Capillary, opake.* F. aculeatus, purpurascens, plicatus, confervoides, *capillaris,* incurvus (pinastroides G. & W.), subfuscus, amphibius, variabilis, lanosus.

2. *Capillary, pellucid.* F. *Thrix,* tenuissimus, asparagoides, corneus, filicinus, pinnatus, albidus, cartilagineus, (coronopifolius G. & W.?), obtusus, coccineus, plumosus, pedunculatus.

Obs. 2. The species printed in Italics not being noticed by Goodenough and Woodward, (*capillaris* excepted) it has been thought proper to add their characters, and also those of three new species contained in the Second Fasc. of Mr. Stackh. and not referred to by Dr. Withering.

siliculo'sus. 73. F. Frond compressed, very much branched, flexuose (yellowish brown), fruit oblong, acute. Stackh. ii. 43. With.

—— Pridmouth, &c. near Fowey. — *Stackh.* 11.

angustifo'lius. 74. F. Linear, forked, very entire, smooth, with minute dots or punctures, fruit slender, pointed. With.

—— Portreath, near St. Ives, Cornw. Stackh.

Obs. No notice is taken of this plant by Mr. Stackh. in his Synopsis Fascic. ii. p. 24, from whence we may conclude that he no longer considers it as a distinct species.

membrana'ceus. 75. F. Frond thin, transparent, mid-ribbed, dichotomous, forked (pale yellow), dotted on each side the rib, leaflets and branches coming out of the mid-rib of the frond. Stackh. i. 14. With.

—— Sidmouth, Devonsh. — 8. *Stackh.* i. 6.

Obs. Mr. Stackhouse seems to think it should rather be referred to the genus Ulva.

pusil'lus. 76. F. Frond matted, creeping, branched (red, ribless), leaves spatulate, sometimes round at top, at other times with two or more forks. Stackh. i. 17. With. (Fructif. not discovered.)

—— Red sand-stone rocks at Sidmouth. *Stackh.* 6.

77. F. Frond membranous, ensiform, without a mid-rib, margin plaited and undulated, stem cylindrical, short. STACKH. ii. 34. WITH. F. *saccharinus* δ. Huds. β. Lightf. *phylli'tis.*

—— Weymouth, &c. —— *Stackh.* 9.

78. F. Frond unbranched, cuneiform (ribless, chocolate-col.), succulent, rounded at top. STACK. ii. 57. WITH. *ed'ulis.*

—— Penzance, &c. —— *Stackh.* p. 12.

79. F. Membranous, forked, segments broad, linear, fructif. in oblong spots. WITH. See Ulva *punctata* page 313. *puncta'tus.*

80. F. Somewhat compressed, much branched, bulbs immersed but projecting from the lower part of the stem. WITH. *nodicau'lis.*

Obs. This appears to have been inserted wholly on the authority of Mr. Stackhouse, and a refer. is given to fasc. ii. plate 11, but on consulting this work we neither find a fig. of the plant, nor any mention made of it in the Synopsis, it must therefore be supposed that Mr. Stackh. no longer considers it as a distinct species.

81. F. Frond filiform (blackish purple), alternately very much branched (branches capillary, long), branchlets somewhat 2-rowed, subulate, short. HUDS. *capilla'ris.*

—— Submarine rocks near Sheerness. P. 4—10.

Obs. Gooden. and Woodw. have named the last species in their Synopsis F. *capillaris*, but they have changed it to *Byssoides* in the latter part of the paper, on receiving specimens of Hudson's real *capillaris* from Sir T. Frankland. See Lin. Tr. vol. iii. p. 231.

82. F. Frond filiform (tubular), unbranched, capillary, many threads from the same base. STAC. ii. 70. WITH. *Thrix.*

—— Penzance. —— *Stackh.* ii. 12.

83. F. Frond cartilaginous, dilated, ribless (purple or brown), somewhat pellucid, segments unequal, deeply cut, summits bifid, with imbedded pericarps. STACK. ii. 51. F. *membranifolius.* Var. 2. With. *lac'erus.*

—— Mount's-bay, Cornwall. —— *Stackh.* 11.

84. F. Frond very much branched (filiform, olive colour), matted together in close patches, summits large, club-shaped (light brown, sometimes purplish). STACKH. ii. 60. *cæspito'sus.*

—— Coast of Cornwall. —— *Stack.* 12.

Obs. This plant is only about half an inch high; its place of growth is much nearer low water-mark than that of F. *pygmæus*. Lightf., which Mr. S. thinks is more nearly allied to Lichen. See F. *lichenoides*. Page 334.

echina'tus. 85. F. Frond cartilaginous (ribless, mostly bright green) widely spreading, with deep segm., the upper surface covered over with blunted succulent (brown) spines. STACKH. ii. 67.
—— Acton Castle, &c. —— *Stackh.* 12.

Obs. The stem is rolled somewhat in at the edges, making a furrow in the middle, so as to answer the char. of "channelled on one side." Stackh.

1207. CONFER'VA. *Tubercles* unequal, on very long capillary fibres. (*Seeds* included in round, solitary, closed, projecting, adnate *tubercles*. (GOODEN. & WOODW. in Lin. Tr.)

Obs. All the Confervæ are tubular, and divided by partitions, those, which are more obviously jointed, being contracted at the septa. STACKH.)

1. *Filaments simple, equal, destitute of joints.*

rivula'ris. 1. C. Filam. very simple, equal, very long (green). *Crow-silk.* Slow streams. P. 1—12. *Dill.* 2. 1.
Var. 2. β. Huds. Var. 2. With. Filaments hardish, and thicker. *Dill.* 2. 2.

fontina'lis. 2. C. Filam. very simple, equal (colour various), shorter than the finger.
—— On stones in springs. A. 3—6. *Dill.* 2. 3.

viola'cea. 3. C. Filam. very simple, equal (slimy), shorter than the finger, violet-coloured. HUDS. LIGHTF. C. *Confragosa*. With.
—— Alpine rivulets. A. 5—10. *Dill.* 2. 4.

2. *Filaments branched, equal.*

furca'ta. 4. C. Filam. equal (pale, nearly white when dry), branched at the extremities, branches simple. HUDS.
—— Slow streams. A. 10—5. *Dill.* 2. 6.
Var. 2. β. Huds. V. 2. With. Filaments shorter and thicker (lively, or dull green). *Dill.* 3. 10.

dichoto'ma. 5. C. Filam. equal, dichotomous (erect, dull green).
—— Ditches near Greenwich. P. 1—12. *Dill.* 3. 9.

bullo'sa. 6. C. Filam. (greenish, slender, implicated), including air bubbles.
—— Ditches, &c. A. 3—6. *Dill.* 3. 11.

7. C. Filaments more branched towards the base (short, slender, green). *canalicula'ris.*
—— Clear brooks, &c. P. 1—12. *Dill.* 4. 15.

8. C. Filam. (short, green) by drying running into prickles. *amphibi'a.*
—— Banks of rivers, &c. P. 1—12. *Dill.* 5. 17.

9. C. Filam. very much branched, rather rigid (dull green, or brownish), branchlets alternate, very short. Huds. *rigi'da.*
—— Streams. P. 1—10. *Dill.* 4. 16.

10. C. Filam. very much branched (greenish, becoming brown), branches and branchlets very long, scattered. Huds. *fœniculacea.*
—— Submar. rocks, Cornw. A. 6—10. *Dill.* 2. 8.

11. C. Filaments very much branched, elongated, roughish (yellowish green). *littora'lis*
—— Rocks, &c. in the sea. A. 5—10. *Dill.* 4. 19.

12. C. Filam. very slender (tomentous), very much branched, branches simple, long, crowded, brown. Huds. *tomento'sa.*
—— Rocks, &c. in the sea. A. 5—10. *Dill.* 3. 13.

13. C. Filam. very slender, very much branched, branches simple, fascicled, whitish (or pale green, short). Huds. *albida.*
—— Ditches, &c. A. 10—5. *Dill.* 3. 12.

14. C. Filam. soft, shorter than the finger, very green. *ærugino'sa.*
—— On Fuci. A. 6—10. *Dill.* 4. 20.

15. C. Filam. very long (about five inches, black), branches alternate, many-cleft, very short. Huds. *nigra.*
—— Yorkshire coast. A. 5—10. ——

16. C. Filam. proliferous, fastigiate, rough-haired (dull green, or brownish). *scopa'ria.*
—— Sea shores. A. 5—10. *Dill.* 4. 23.

17. C. Threads branched (pale), filaments alternate, short, many-parted, digitate. *cancella'ta.*
—— Submarine stones. P. 1—12. *Dill.* 4. 22.

18. C. Filam. very much branched (red), branchlets opposite, very short, many-cleft. Huds. *multifi'da.*
—— Submarine rocks, &c. Dorsets. A. 5—10.

3. *Filaments anastomosing.*

19. C. Filam. uniting and forming a kind of network (green). *reticula'ta.*
—— Ditches about Houns. A. 5—10. *Dill.* 4. 14.

4. *Filaments hirsute* (scoparia, villosa).

Obs. This division was introduced by Lightf.

intertexta. 20. C. (Scarcely an inch high.) But little branched, branches short, of equal thickness, substance a closely interwoven texture, without a mid-rib. With., who doubts whether it be not a spunge.
—— Cornish coast. Stackh. Weymouth. Vell.

equisetifolia. 21. C. Geniculate, branched (red), branches subulate, branchlets dichotomous, verticillato-imbricated. Lightf. C. *imbricata.* Huds.
—— Rocks & Fuci. P. 1—12. *H. ox.* 15. 9. 7.

Obs. The jointed mid-rib is surrounded with verticils of short filaments, and these being longer than the internodes, it is entirely covered with them. See With.

verticillata. 22. C. Filam. branched, geniculate (dull green, changing to brown), branchlets verticillate (shorter than the internodes), forked, incurved. Light.
—— Submarine rocks, &c. in Cornwall, &c.

spongiosa. 23. C. Filaments rather dichotomous (dark brown), branchlets very short, simple, on every side imbricated (greenish). Huds.
— Submarine rocks, &c. P. 1—12. *H. ox.* 15. 9. 6.

Obs. It is two or three inches high, has a strong mid-rib imbricated on every side with short, bristle-like threads, so as to resemble the tail of a hound. With.

5. *Filaments knotty.*

fluviatilis. 24. C. Threads very simple, bristle-shaped, straight (brown purple); joints thicker, angular.
—— Rivers. P. 1—12. *Dill.* 7. 47.
Var. 2. β. Huds. V. 2. With. Green, contracted at the joints. *Dill.* 7. 48.

atra. 25. C. Filaments beaded like a necklace, setaceous very much branched, black, joints globular, almost gelatinous. Huds.
—— Springs and rivulets. P. 5—12. *Dill.* 7. 46.

gelatinosa. 26. C. Threads branched, necklace-like (brownish, or blackish), joints globular, gelatinous.
—— Brooks & spr. A. 1—12. *Weis.* 33. 1. *Dill.* 7. 42.
Var. 2. β. Huds. Var. 2. With. Less, green, like the spawn of frogs. *Dill.* 7. 43.
—— 3. γ. Huds. V. 3. With. Globules greenish, mucous. *Dill.* 7. 44.
—— 4. δ. Huds. V. 4. With. Filam. knotty, blue. Clifton-moss. *Dill.* 7. 45.

6. *Filaments geniculate.*

27. C. Threads geniculate, simple (rigid, straight, yellowish green), joints alternately compressed. *capilla'ris.*
—— Salt-water pools. A. 3—10. *Dill.* 5. 25. A.
Var. 2. Smaller and shorter. *Dill.* 5. 25. B.

28. C. Filam. very simple, capillary, geniculate, (yellowish or brownish), very short (scarcely ½ an inch), crowded. VELLEY Icon. pl. *fucic'ola.*
—— Upon F. *nodosus* & *vesiculosus*. Spr. *Velley.*

29. C. Threads geniculate, dichotomous (white; joints purplish, thicker at the end, branches acute. WITH.) C. *corallinoides*. Sp. pl. Huds. *coralli'na.*
—— Rocks in the sea. A. 5. 10. *Dill.* 6. 36.

30. C. Filam. geniculate, very much branched (yellowish green), joints oval, alternately compressed. HUDS. Ulva *confervoides*. Lin. See Page 314. *tubulo'sa.*
—— Sea rocks, &c. A. Summer. *Dill.* 6. 39.

31. C. Filaments geniculate, dichotomous (greenish red, or purplish), branches very long, setaceous, joints cylindrical. HUDS. *seta'cea.*
— Submarine rocks, &c. A. 5—10. *Dill.* 6. 37.

32. C. Filam. geniculate (long, brownish purple), branched, branches dichotomous, long, setaceous, joints very short. *elonga'ta.*
—— Rocks, &c. in the sea. A. 4—10. ——

33. C. Filam. geniculate, dichotomous, converging at the ends, joints ciliate at the summit. HUDS. *cilia'ta.*
— Fuci. A. 5—10. *Ellis Phil. T.* V. 57. 18. f. H. h.

34. C. Filam. geniculate (somewhat dichotomous, fastigiate), branches fascicled. F. *lanosus*. Huds. See Lin. Tr. Vol. iii. p. 234. *polymor'pha.*
— On Fucus *nodosus*, &c. P. 1—12. *Dill.* 6. 35.

35. C. Filaments geniculate (reddish), very much branched, branches setaceous, joints cylindrical, short. HUDS. C. *nodulosa*. Lightf. *ru'bra.*
—— On Fuci, rocks, &c. A. 5—10. *Dill.* 6. 38.

36. C. Filaments geniculate (purplish), very much branched, branches crowded, joints cylindrical, long. HUDS. *purpuras'cens.*
—— On submarine Fuci. A. 5—10. *Dill.* 7. 41.

37. C. Filam. geniculate, very much branched (red or purplish), joints oblong, those of the branchlets roundish, bead-like. HUDS. *nodulo'sa.*
—— On Fuci, &c. A. 5—10. *Dill.* 7. 40.

Var. 2. Threads finer, joints hardly projecting. LIGHTF. WITH. 42.

diaph'ana. 38. C. Filaments geniculate, very much branched, branches dichotomous, like forceps at the end, the partitions deep red, joints transparent. LYT. 50.
—— Stones in salt-water pools. — *F. Dan.* 951.

pellu'cida. 39. C. Filam. geniculate (greenish purple), very much branched, branches opposite, joints cylindrical, very long. HUDS.
—— Rocks, &c. in the sea. A. 5—10. ——

vagabun'da. 40. C. Filaments geniculate (pale green), flexuose, branches and branchlets shorter (branchlets very short, horizontal. HUDS.)
—— Salt-water ditches. A. 4—10. *Dill.* 5. 32.

rupes'tris. 41. C. Filam. geniculate, very much branched, green. (Branches and branchlets shorter, crowded. HUDS.) 51.
—— Rocks, &c. in the sea. P. 1—12. *Dill.* 5. 29.
Var. 2. β. Huds. 2. With. Filam. capillary, dark green. DILL. 27. *Tab.* 5. 28.

seric'ea. 42. C. Filam. geniculate, very much branched, elongated, green, branchlets crowded, very fine. HUDS. 52.
—— Rocks, &c. in the sea. P. 1—12. *Dill.* 5. 33. 53.

glomera'ta. 43. C. Filam. geniculate (very much branched, green), branchlets shorter, many-cleft.
—— Brooks and springs. A. 4—10. *Dill.* 5. 31.

ful'va. 44. C. Filaments geniculate, branched, branches and branchlets very short, tawny. HUDS.
—— On Fuci, &c. A. 5—10. ——

nigres'cens. 45. C. Filam. geniculate (dark red, black when dry), very much branched, branches very long, branchlets somewhat fasciculed, very short, subulate. HUDS.
—— Rocks, &c. in the sea. P. 1—12. ——

tetrago'na. 46. C. Filam. geniculate, (pinky-) red, much branched, branches four-sided. WITH.
—— On the larger Fuci at the Bill of Portland.

fus'ca. 47. C. Filam. geniculate (blackish, brown, or reddish), very much branched, branchlets alternate, simple. HUDS.
—— Rocks, &c. in the sea. A. 6—10. ——

fucoi'des. 48. C. Filam. geniculate (blackish red), very much branched, branchlets many-cleft, the lower fasciculed, fruit-bearing. HUDS.
—— On Fuci, &c. P. 1—12.

42. C. Filam. geniculate (green), branched, joints villous, branches nearly simple, distant. *villo'sa.*
—— Rocks in the sea. A. 5—9. ——

50. C. Filam. geniculate (bright red, or purplish), branched, branches alternate, bipinnate, segments many-cleft. (Very much branched, compressed, branches more than decompound, alternately pinnate, fructific. ovate, dioicous. Lightf.) C. *plumosa*, Lightf. *coccin'ea.*
— On stones. P. *Ellis Phil. Tr.* 57. 18. cC. dD.

Obs. The males are small red conic grains or capsules growing out of the finer segments on very short peduncles.—The females are a little larger, of a short oval form, and grow quite sessile on the sides of the ultimate pinnules. Lightf. But it is hardly to be conceived that the anthers should be so large in this genus, and I should rather consider them as real seed-bearing capsules.

51. C. Filam. geniculate (olive green, changing to brown), branched, branches crowded, tripinnate, segments subulate. Huds. *penna'ta.*
—— Submarine rocks, &c. A. 1—12. ——

52. C. Filaments geniculate (brown), branched, branches bipinnate. Huds. *parasit'ica.*
—— On Fuci on the coast of Yorkshire, &c.

53. C. Filam. geniculate (bright green), very much branched, branches from the centre, very much crowded, forming a ball. *ægagro'pila.*
Globe Conferva. Mount. lakes. P. 1—12. ——

FUNGI.

1209. Agar'icus. *Fungus* horizontal, gilled underneath. (Gills composed of two laminæ containing the seeds.)

Synoptical Table of the Divisions.

1. *Stalks central, solid, gills decurrent.*
2. *Stalks central, solid, gills fixed.*
3. *Stalks central, solid, gills loose.*
4. *Stalks central, tubular, gills decurrent.*
5. *Stalks central, tubular, gills fixed.*
6. *Stalks central, tubular, gills loose.*
7. *Stalks lateral.*
8. *Stalks none.*

Obs. The arrangement, and also the characters, &c. of the very numerous species of this genus, are taken in a great measure from Dr. Withering, to whose very full and valuable descriptions I must beg leave to refer my readers for further information.

1. *Stalks central, solid, gills decurrent.*

androsa'ceus. 1. A. White, pileus plaited, membranous, stalk black. (Gills white, few, pileus white, plaited, membranous, convexo-depressed, diameter nearly $\frac{1}{2}$ inch, stalk blackish below, height about 3 inch., diam. not $\frac{1}{16}$). Merulius *androsaceus*. With.
—— On decaying leaves and twigs. Aut. *Sow.*94.

Obs. In future d. will be used for diameter, b. for breadth, l. for length, and h. for height, and inch will be omitted, as the dimensions are always given in inches, or parts of an inch.—The diameter of a stalk is always taken in the middle, when the contrary is not expressed.

buccina'lis. 2. A. Gills white, pileus white, funnel-shaped, d. $\frac{1}{4}$, stalk white, ascending, thicker above (h. $\frac{1}{2}$ to $\frac{3}{4}$, d. scarcely $\frac{1}{16}$). Batsch. Sow. Mer. *buccinalis*. With.
—— Amongst moss & grass. *Sow.*107. *Batsch.*114.

ramea'lis. 3. A. Gills white, 4 in a set, pileus brownish white, convex, concave when old (d. $\frac{1}{2}$), stalk white. (H. $\frac{1}{2}$ to 1, d. not $\frac{1}{12}$.) Bulliard. A. *candidus*. Bolt.
—— On sticks, &c. — 10. *Bull.* 276. *Bolt.* 39. D.

Obs. In Bolton's fig. the gills do not appear to be decurrent; whence With. suspects that there may be two distinct species growing in a similar manner.

ebur'neus. 4. Gills white, few, very short, in pairs, pileus white, convex (d. $\frac{1}{4}$ to $1\frac{1}{4}$), stalk white (h. $\frac{1}{2}$ to $1\frac{1}{2}$, d. $\frac{1}{8}$). Bull. A. *virgineus*. Jacq. Sow.
—— Amongst short grass. *Sow.* 32. *Bolt.* 4. low.f.

gigan'teus. 5. A. Gills white, broad, 4 in a set, but irregular, pileus dirty white, funnel-shaped (d. 5), margin reflected, stalk white, rather tapering upwards (h. 4, d. 1). Sibth. With.
— Shotover-hill, near Oxf. Sibth.10. *Buxb.* 4. 1.

cyathifor'mis. 6. A. Gills white, 4, or 8 in a set, pileus white, glass-shaped (d. 1 to 2), stalk white, nearly cylindrical (h. 1 to 2, d. $\frac{1}{4}$). Bull. A. *umbilicatus*. Schæf. Bolt.
—— In pastures. — 8. *Bull.* 248. A. *Bolt.* 17.
Var. 2. Pileus and stalk buff. *Bull.* 248. B.

central, solid, gills decurrent, white.

7. A. Gills white, pileus white, bossed, centre yellowish (d. 2), stalk whitish buff, very long (h. 3, d. $\frac{1}{4}$). Schæf. *ni'tens.*
—— Parks. Autumn. *Schæf.* not excellent.

8. A. Gills watery, white, narrow, 4, or 8 in a set, pileus funnel-shaped, brownish buff (d. $1\frac{1}{4}$ to 3, the margin curled), stalk brownish buff (h. $1\frac{1}{4}$ to $2\frac{1}{2}$). Bull. *infundib'uli-for'mis.*
—— Plantations, 7. *Bull.* 286.
Var. 2. Gills but little decurrent, pileus dead white. *Bolt.* 61. See A. *fimbriatus.* Page 344.
Obs. By *watery white* is understood the appearance, which white paper assumes when moistened, the whiteness being diminished, and a degree of transparency acquired.

9. A. Gills white, greatly decurrent, branching and anastomosing, pileus white, nearly flat (d. $1\frac{1}{4}$ to $1\frac{1}{2}$), stalk white, thick (h. $1\frac{1}{2}$).—Batsch. A. *clavæformis.* Schæf. *obe'sus.*
—— Amongst moss. 8. *Batsch.* 216. *Schæf.* 307.
Var. 2. Pileus pale dead brown, margin violet, rolled in very much. A. *carnosus.* Bolt.
—— Stumps of trees. 8. *Bolt.* 146.

10. A. Gills white, in pairs, very short, pileus whitish, convex (d. $1\frac{1}{4}$), stalk whitish, conical, crooked (h. $\frac{3}{4}$, d. $\frac{1}{4}$). A. *risigallinus.* Batsch. *pistilla'ris.*
—— Amongst grass, &c. 8. *Batsch.* 62.

11. A. Gills yellowish, or greyish white, 4 in a set, pileus whitish, tufted, convex, centre depressed (d. 2), stalk oblique, spotted (h. 1 to 2, d. $\frac{1}{8}$ to $\frac{1}{4}$). Bull. *tigri'nus.*
—— On decayed trunks of Elm, &c. *Bull.* 70.

12. A. Gills white, 4 in a set, pileus pale mouse-colour, gently convex with the margin turned in (d. 3,), stalk cylindrical, erect, (bulbous, at the base, without a ring, h. 3, d. nearly 1). A. *mollis.* Bolt. *ca'seus.*
—— Dry woods, &c. —— *Bolt.* 40. *Sow.* 122.?
Var. 2. Gills snowy white, stalk very large, with a large ring, Stackh.

13. A. Gills whitish, numerous, narrow, pileus smooth, irregular, flattish, depressed in the centre (d. 3 to 7), stalk white, rarely central (h. 2, d. 1), juice milky. A. *piperatus.* Bolt. *Liste'ri.*
—— Woods, —— *Bolt.* 21.

Var. 2. Gills connected by transverse threads, pileus light drab, very viscid, stalk tapering downwards.

—— 3. Gills yellow white, numerous, and narrow, pileus white, oblique. *Schæf.* 83.

—— 4. Gills white, pileus buff, with yellow brown concentric circles. *Bull.* 104.

—— 5. Pileus greenish brown, flecked, and gluey.

adhæsi'vus. 14. A. Gills pure white, four in a set, pileus brown white, the centre darker (flattish d. $1\frac{1}{2}$ to $2\frac{1}{2}$), stalk white, tapering gently downwards (h. 3, d. $\frac{1}{2}$).

—— Plantations. 9. ——

fra'grans. 15. A. Gills brown white, 4 in a set, pileus brown white, semi-transparent (d. 1 to $1\frac{1}{2}$), stalk brown white (h. 2 to $2\frac{1}{2}$, d. $\frac{1}{6}$).

—— Parks, &c. 10. *Sow.* 10.

umbrac'ulum. 16. A. Gills dirty white, 4 in a set, pileus cool brown, conical, striated (d. 1 at the base, h. 1), stalk cool brown, cylindrical, tomentous at the base (h. $3\frac{1}{2}$, d. $\frac{1}{6}$). A. *sanguineus* Batsch.

—— Stumps of trees. 9. *Batsch.* 4.

agres'tis. 17. A. Gills brownish white, irregular, mostly 4 in a set, pileus pale brown, darker in the centre, convex (d. 1), stalk solid, pale brown (h. 2 or 3, d. $\frac{1}{8}$).

—— Pastures, &c. 11. ——

umbona'tus. 18. A. Gills white, 4 in a set, long ones about 17, pileus brownish, gently convex, central boss dark brown, much elevated (d. $\frac{1}{2}$), stalk pale brown, cylindrical, firm, crooked (h. $1\frac{1}{2}$, d. $\frac{1}{8}$).

—— Edgbaston Park. 11. *Sow.* 124. ?

Obs. Sowerby refers his plant to A. *geophyllus* Bull. 522. fig. 2. and A. *inodorus* Bull. 524. 2. and observes that it is variable in colour, the pileus being sometimes brown all over, or purplish, and more or less scaly, the boss generally darkest and mostly brown, the gills from nearly white to a dark brown.

membrana'ceus. 19. A. Gills brownish white, 4 in a set, the short gills unusually long, pileus pale chesnut, hollow, but bossed in the centre (d. 2 to 5), stalk pale brown (h. 2 to 4, d. $\frac{1}{4}$ to $\frac{1}{2}$), root bulbous. Vahl.

—— In fir plantations. 10. *F. Dan.* 1012.

Var. 2. Pileus yellowish white, flat, bossed, stalk white.

20. A. Gills dirty watery-white, not numerous, 4 in a set, pileus pinky brown, nearly flat, margin turned down (d. $2\frac{1}{2}$ to 4), stalk cylindrical, buff, with brown scales (h. 3 to 4, d. $\frac{1}{2}$ to 1). Scop. Dicks. A. *glutinosus*. Schæf. *limaci'nus.*
—— Fir plantations. 9. *Schæf.* 36. 5. 6. 7.

21. A. Gills grey white, much branched, pileus convex, entirely covered by the membranous curtain (d. 1 to 2, stalk brown, thicker above, d. nearly $\frac{1}{2}$). *vela'tus.*
—— Pine groves. — *Sow.* 7. *Schæf.* 36. 1. 2. 3. 4.

22. A. Gills white, 4 in a set, pileus reddish brown, woolly and tufted (d. 3 to 6), stalk yellow brown, or olive, bulbous at the base (h. 4 to 6, d. $\frac{1}{3}$ to $\frac{1}{2}$), ring woolly, permanent. A. *congregatus* and *melleus*. Bolt. *cumula'tus.*
—— Stumps of trees. — 10. *Bolt.* 141. 140.
Var. 2. Gills 4, or 8 in a set, striating the stem by their decurrence down to the ring, pileus wrinkled, and plaited at the margin. A. *obscurus*. Schæf. A. *melleus*. F. Dan. ——
— On hedge banks, 10. *F. Dan.* 1013. *Schæf.* 74.
Var. 3. Very large, stalk d. 1, yellow, as well as the curtain.

23. A. Gills whitish, small, few, pileus tawny red, convex, smooth (d. $\frac{1}{4}$), stalk whitish, thickest in the middle (h. 2 to 3, d. $\frac{1}{4}$). Scop. Battar. Dicks. *coralloi'des.*
—— In hollow trees. 10. *Battar.* 9.

24. A. Gills white, very short, pileus orange buff, with small tufts of dark hairs, hemispherical (d. 2), stalk buff (h. 2 to 3, d. near $\frac{1}{2}$, smooth, curved, ring fugacious). Bull. *au'reus.*
—— Shotover plantations. Sibth. 9. *Bull.* 92.

25. A. Gills yellow white, changing to dark red brown, pileus greenish buff, scurfy, convex, margin turned in (d. 1 to 4), stalk white, changing to brown (h. 2, d. $\frac{1}{4}$). *versic'olor.*
—— Rare, in Edgbaston Park. 7. ——

26. A. Gills white, eight in a set, pileus glaucous green, nearly flat (d. 2 to 4), stalk white, cylindrical (h. 1 to $1\frac{1}{2}$, d. $\frac{1}{6}$). *odo'rus.*
—— Shotover plantations. Sibth. 9. *Bull.* 176.

27. A. Gills dead buff brown, remote, 3 or 4 in a set, running down to the root, pileus dusky *cor'nucopioi'des.*

cinnamon-colour, lobed, curled, d. 3, stalks black brown, furrowed, twisted, several from the same root, h. 4 or 5, d. about $\frac{1}{2}$. Bolt. Mer. *cornucopioides.* With.

—— In shady woods. 9. *Bolt.* 8.

casta'-neus. 28. A. Gills yellow brown, 4 in a set, but often irregular, and branched, pileus concave, sattiny (d. 2 to 7), stalk rich yellow brown (h. $1\frac{1}{2}$ to 3, d. $\frac{1}{2}$), A. *cinnamomeus.* Bolt.

—— Under shady trees. 8—4. *Bolt.* 22. *Schæf.* 252.

Var. 2. Gills 4 to 8 in a set, pileus concave, dotted.

rubes'cens. 29. A. Gills reddish brown, 8 in a set, pileus reddish brown, with darker concentric circles (d. $1\frac{1}{2}$ to 3, stalk reddish brown, h. 1 to 3, d. near $\frac{1}{2}$, rarely central). Schæf.

—— Plantations in a clayey soil. 9. ——

sero'sus. 30. A. Gills pale brown, numerous, 4 in a set, pileus cinnamon col., flecked, gently convex but depressed in the middle (d. 1 to 2), stalk cinnamon, smooth, crooked (h. 2, d. $\frac{1}{8}$), juice like whey.

—— Pastures. —— 10. *Bull.* 54. nearly like it.

lactif'luus. 31. A. Gills red brown, pileus dark red brown (d. 1 to 4), stalk buffy (h. 1 to 4, d. $\frac{1}{4}$), juice milky, mild. Lin. char. "Pileus flat, flesh-col., milky, gills reddish, stalk long, flesh-colour."

—— Under shady trees. —— *Schæf.* 5.

Var. 2. Pileus funnel-shaped, stalk rich red brown, thinner downwards, with yellow bristles at the base.

pilo'sus. 32. A. Gills brown, 4 in a set, pileus and stalk yellowish, tufted with darker hairs. Schæf.

—— Stumps of trees. —— *Schæf.* 80.

Var. 2. Pileus tawny, uniformly hirsute, stalk white, curtain white, ring permanent. A. *villosus.* Bolt. *Plate* 42.

—— 3. Gills paler than the pileus, pileus tufted, stalk smooth, bulbous at the base.

delica'tulus. 33. A. Gills brown cinnamon, claws white, 4, or 8 in a set, pileus buffy yellow, flattish, stalk cylindrical, yellow (h. 3, d. $\frac{1}{8}$ to $\frac{1}{6}$), ring turned down on the stem, fugacious).

—— Rare, Edgbaston. —— *F. Dan.* 1008. *like it.*

Var. 2. Gills brown, mottled, margin and claws white, 4 in a set, pileus buff (d. 1 to $1\frac{1}{2}$), stalk yellowish white.

34. A. Gills salmon-colour, not numerous, 2 or 4 in a set, pileus white (d. about 1), stalk white (cylindrical, h. 1, d. $\frac{1}{8}$). STACKH. *carneo-al'bus.*

35. A. Gills pinky red, few, 4, to 8 in a set, pileus brown red, flesh red (d. $\frac{3}{4}$ to $1\frac{1}{4}$), stalk pinky red (h. $1\frac{1}{2}$ to 2, d. $\frac{1}{8}$). BATSCH. *rosel'lus.*

—— Amongst alder stumps. 10. *Batsch.* 99.

36. A. Gills pinky liver-colour, numerous, in pairs, pileus pinky brown, sattiny, flat (d. 3 to 5, margin turned in), stalk pinky above, yellowish below, tapering downwards (h. 2 to 3, d. $\frac{1}{2}$ to 1). *jecori'nus.*

—— Pine plantations. 7. ——

37. A. Gills flame-col., narrow, regularly branched, pileus rich red brown, flesh orange-colour (nearly flat, the margin turned in, d. $1\frac{1}{2}$ to 3), stalk orange, tapering downwards (h. 1 to 2, d. $\frac{1}{4}$ to $\frac{3}{8}$). Lin. char. "Pileus tile-coloured, juice yellowish." *delicio'sus.*

—— Fir plantations. 9. 10. ——

Var. 2. Gills brick red, branched, pileus brick red, with darker and paler concentric circles, stalk spotted, juice saffron-colour. *Schæf.* 11.

—— 3. Gills pale brick colour, 4 in a set, pileus of the same col., juice golden yellow. A. *zonarius.* Bolt. *Plate* 144.

38. A. Gills pale pinky red, numerous, in pairs, pileus dirty yellow white, woolly, depressed in the centre (d. 3), stalk pale yellow (not central, nearly cylindrical, h. $1\frac{1}{2}$ to 2, d. $\frac{1}{2}$, juice milky, peppery). Lin. char. "Pileus flattish, milky, margin deflected, gills pale flesh-col." *pipera'tus.*

—— Woods. —— *F. Dan.* 1068.

39. A. Gills buff, mostly in pairs, pileus white, smooth, nearly flat (d. 1 to $1\frac{1}{2}$), stalk white (cylindrical, h. 1 to 2, d. $\frac{1}{6}$). BULL. *eric'eus.*

—— Amongst grass. 10. *Bull.* 188.

40. A. Gills buff, numerous, 8 in a set, pileus dark buff (concave, d. $1\frac{1}{2}$ to 5), stalk buff (h. 2, d. $\frac{1}{4}$), juice milky, mild. HUDS. *dul'cis.*

—— Plantations. 10. *Bolt.* 3.

41. A. Gills buffy, pileus deep chesnut, hollow, margin turned under (d. 3), stalk chesnut, darker below (h. 2, d. $\frac{1}{2}$), flesh red brown. BATSCH. *cimica'rius.*

—— Parks. Autumn. *Batsch.* 69.

cinnamon-colour, lobed, curled, d. 3, stalks black brown, furrowed, twisted, several from the same root, h. 4 or 5, d. about $\frac{1}{2}$. Bolt. Mer. *cornucopioides.* With.

—— In shady woods. 9. *Bolt.* 8.

casta'-neus. 28. A. Gills yellow brown, 4 in a set, but often irregular, and branched, pileus concave, sattiny (d. 2 to 7), stalk rich yellow brown (h. $1\frac{1}{2}$ to 3, d. $\frac{1}{2}$), A. *cinnamomeus*: Bolt.

—— Under shady trees. 8—4. *Bolt.* 22. *Schæf.* 252.

Var. 2. Gills 4 to 8 in a set, pileus concave, dotted.

rubes'cens. 29. A. Gills reddish brown, 8 in a set, pileus reddish brown, with darker concentric circles (d. $1\frac{1}{2}$ to 3, stalk reddish brown, h. 1 to 3, d. near $\frac{1}{2}$, rarely central). Schæf.

—— Plantations in a clayey soil. 9. ——

sero'sus. 30. A. Gills pale brown, numerous, 4 in a set, pileus cinnamon col., flecked, gently convex but depressed in the middle (d. 1 to 2), stalk cinnamon, smooth, crooked (h. 2, d. $\frac{1}{8}$), juice like whey.

—— Pastures. —— 10. *Bull.* 54. nearly like it.

lactif'luus. 31. A. Gills red brown, pileus dark red brown (d. 1 to 4), stalk buffy (h. 1 to 4, d. $\frac{1}{4}$), juice milky, mild. Lin. char. "Pileus flat, flesh-col., milky, gills reddish, stalk long, flesh-colour."

—— Under shady trees. —— *Schæf.* 5.

Var. 2. Pileus funnel-shaped, stalk rich red brown, thinner downwards, with yellow bristles at the base.

pilo'sus. 32. A. Gills brown, 4 in a set, pileus and stalk yellowish, tufted with darker hairs. Schæf.

—— Stumps of trees. —— *Schæf.* 80.

Var. 2. Pileus tawny, uniformly hirsute, stalk white, curtain white, ring permanent. A. *villosus.* Bolt. *Plate* 42.

—— 3. Gills paler than the pileus, pileus tufted, stalk smooth, bulbous at the base.

delica'tulus. 33. A. Gills brown cinnamon, claws white, 4, or 8 in a set, pileus buffy yellow, flattish, stalk cylindrical, yellow (h. 3, d. $\frac{1}{8}$ to $\frac{1}{6}$), ring turned down on the stem, fugacious).

—— Rare, Edgbaston. —— *F. Dan.* 1008. *like it.*

Var. 2. Gills brown, mottled, margin and claws white, 4 in a set, pileus buff (d. 1 to $1\frac{1}{2}$), stalk yellowish white.

34. A. Gills salmon-colour, not numerous, 2 or 4 in a set, pileus white (d. about 1), stalk white (cylindrical, h. 1, d. $\frac{1}{8}$). STACKH. *carneo-al'bus.*

35. A. Gills pinky red, few, 4, to 8 in a set, pileus brown red, flesh red (d. $\frac{3}{4}$ to $1\frac{1}{4}$), stalk pinky red (h. $1\frac{1}{2}$ to 2, d. $\frac{1}{8}$). BATSCH. *rosel'lus.*

—— Amongst alder stumps. 10. *Batsch.* 99.

36. A. Gills pinky liver-colour, numerous, in pairs, pileus pinky brown, sattiny, flat (d. 3 to 5, margin turned in), stalk pinky above, yellowish below, tapering downwards (h. 2 to 3, d. $\frac{1}{2}$ to 1). *jecori'nus.*

—— Pine plantations. 7. ——

37. A. Gills flame-col., narrow, regularly branched, pileus rich red brown, flesh orange-colour (nearly flat, the margin turned in, d. $1\frac{1}{2}$ to 3), stalk orange, tapering downwards (h. 1 to 2, d. $\frac{1}{4}$ to $\frac{3}{8}$). Lin. char. "Pileus tile-coloured, juice yellowish." *delicio'sus.*

—— Fir plantations. 9. 10. ——

Var. 2. Gills brick red, branched, pileus brick red, with darker and paler concentric circles, stalk spotted, juice saffron-colour. *Schæf.* 11.

—— 3. Gills pale brick colour, 4 in a set, pileus of the same col., juice golden yellow. A. *zonarius.* Bolt. *Plate* 144.

38. A. Gills pale pinky red, numerous, in pairs, pileus dirty yellow white, woolly, depressed in the centre (d. 3), stalk pale yellow (not central, nearly cylindrical, h. $1\frac{1}{2}$ to 2, d. $\frac{1}{2}$, juice milky, peppery). Lin. char. "Pileus flattish, milky, margin deflected, gills pale flesh-col." *pipera'tus.*

—— Woods. —— *F. Dan.* 1068.

39. A. Gills buff, mostly in pairs, pileus white, smooth, nearly flat (d. 1 to $1\frac{1}{2}$), stalk white (cylindrical, h. 1 to 2, d. $\frac{1}{6}$). BULL. *eric'eus.*

—— Amongst grass. 10. *Bull.* 188.

40. A. Gills buff, numerous, 8 in a set, pileus dark buff (concave, d. $1\frac{1}{2}$ to 5), stalk buff (h. 2, d. $\frac{1}{4}$), juice milky, mild. HUDS. *dul'cis.*

—— Plantations. 10. *Bolt.* 3.

41. A. Gills buffy, pileus deep chesnut, hollow, margin turned under (d. 3), stalk chesnut, darker below (h. 2, d. $\frac{1}{2}$), flesh red brown. BATSCH. *cimica'rius.*

—— Parks. Autumn. *Batsch.* 69.

Var. 2. Gills 4, or 8 in a set, connected by short transverse ligaments.

—— 3. Gills in pairs, stalk short, eccentric, juice milky, changing to sulphur colour.

flexuo'sus. 42. A. Gills buff, slightly decurrent, pileus deep buff, gently convex (d. $1\frac{1}{2}$), stalk yellow white, serpentine.
—— Parks. —— *Bull.* 308 *is somewhat like it.*

livido-rubes'cens. 43. A. Gills buff, numerous, 4 in a set, pileus mouse-colour, concave, margin turned down (plaited, d. 3 to 4), stalk white, thick (h. 2, d. more than 1, juice milky, rather acrid). Batsch.
—— Plantations. 8. *Batsch.* 202.

a'cris. 44. A. Gills reddish buff, 4 in a set, branching, pileus cool brown, viscid, shining, oblique (d. 2 to $3\frac{1}{2}$), stalk whitish, shining, eccentric (h. 1 to $1\frac{1}{2}$, furrowed, juice milky, acrid). Bolt.
—— Shady woods. 8. *Bolt.* 60.

clavæfor'mis. 45. A. Gills pinky buff, very irregular, pileus brown buff, cracking (irregularly convex, d. 1 to 2), stalk solid, whitish (h. 1 to $1\frac{1}{2}$, d. $\frac{1}{8}$). Schæf.
—— Fields. 10. *Schæf.* 307.

fib'ula. 46. A. Gills buff, pileus orange or yellow brown, centre hollow (d. $\frac{1}{4}$), stalk yellow (h. 1 to $1\frac{1}{2}$, d. not $\frac{1}{12}$). Bull.
—— Amongst moss. —— *Bull.* 186.

con'fluens. 47. A. Gills brown buff, 4 in a set, pileus brown buff, concave, with irregular protuberances (d. $1\frac{1}{2}$ to 2, margin irregularly lobed, undulated), stalks several from the same base, brown buff, attenuated downwards.
—— Rev. C. Abbot. Autumn. *Sow.* 168.

elix'us. 48. A. Gills buff, 4 in a set, middle-sized ones undulated, pileus brown (darker in the centre), flat, margin lobed, undulated, stalk buff.
—— In damp meadows, &c. Autumn. *Sow.* 172.

Obs. The pileus is flat or concave, d. $2\frac{1}{2}$ to $4\frac{1}{2}$, the stalk cylindrical, h. 2 to nearly 3, d. $\frac{1}{4}$ to $\frac{5}{8}$, and the plant has a very sodden appearance.

testa'ceus. 49. A. Gills brown yellow, 4 in a set, pileus deep yellow, bossed (d. 2, margin turned up), stalk yellow, striated, thickest downwards (h. 3 to 4, d. $\frac{3}{8}$). Huds.
—— Plantations. 9. *Schæf.* 65.

50. A. Gills pale yellow, mostly uniform, forked, pileus yellow brown, margin much turned in (d. $3\frac{1}{2}$ to 5), stalk yellow brown, with reddish stains (h. 2, d. 1). A. *lateralis*. Schæf. *adus'tus.*
—— Under oak trees. 8. *Schæf.* 72. 71.

51. A. Gills pale golden yellow, pileus funnel-shaped, golden yellow (d. $1\frac{1}{2}$), stalk very long, crooked (h. 6, d. $\frac{3}{8}$). Schæf. Dicks. *tubæfor'mis.*
—— Trunks of trees. 6. *Schæf.* 248. 249.

52. A. Gills yellow, very numerous, mostly branched, anastomosing near the stalk, pileus cinnamon, nearly flat (d. 4 to 5, margin woolly, involute), stalk brown, striated (h. $2\frac{1}{2}$, d. $\frac{1}{2}$). Bull. *contig'uus.*
—— Fir plantations. 9. *Batsch.* 61. *Bull.* 240.
Var. 2. Gills pale brown, numerous, 4 in a set, pileus red brown, convex, margin involute, with a velvety zone above it, stalk crooked (ascending). A. *adscendens*. Bolt. *Plate* 55.

53. A. Stipitate, gills branched, decurrent. (Gills yellow, narrow, branched, anastomosing, pileus yellow, concave, margin irregular, curled, d. 1 to 3, stalk yellow, attenuated downwards, h. 1 to 2, d. $\frac{1}{4}$ to $\frac{3}{4}$). Lin. &c. Mer. *Cantharellus*. With. *Cantharel'lus.*
—— Dry soil in woods. 7—9. *Sow.* 46. *Bolt.* 62.
Var. 2. Gills branched, not anastomosing, pileus nearly flat. *Bull.* 505. 1. *Batsch.* 37.

54. A. Gills yellow, four in a set, pileus yellow, orange in the centre, convex (d. $\frac{1}{2}$ to $\frac{5}{8}$), stalk brown (white near the pileus), villous, thicker at the base (h. 1 to $1\frac{1}{2}$, d. $\frac{1}{12}$). Bulliard, *tab.* 522. 1. *caulicina'lis.*
—— Fir woods, near Newmarket. 9. *Sow.* 163.

55. A. Gills pale yellow, mostly in pairs, pileus buff, flattish, centre depressed and darker, margin involute, villous, stalk obconical (h. $1\frac{1}{2}$, d. $\frac{1}{2}$), juice milky, acrid. Bull. *neca'tor.*
—— Near Woolhope, Heref. 8. *Bull.* 529.
Var. 2. (A var. of A. *contiguus* ?) Gills much branched, anastomosing, pileus brown buff, stalk very short, thick. (Juice not milky.) See With.

56. A. Gills pale yellow, or tawny, not numerous (3 or) 4 in a set, pileus red buff (or tawny brown), conical, changing to convex and boss- *ful'vus.*

ed, the margin at length turning up, stalk (pale buff) whitish, cylindrical (h. 1½ to 3, d. ¼ to ½). Bolt.

—— Dry barren past. 9—10. *Bolt.* 56. *Sow.* 143.

amethystinus. 57. A. Gills purple (slightly decurrent), 2, 3, or 4 in a set, pileus purple, convex (d. 1 to 2), stalk pale purple, cylindrical (h. 2 to 3, d. ⅛ to ¼). Huds. With.

—— Woods. 8—10. *Bull.* 198. & 570.

rutilus. 58. A. Gills reddish purple, coriaceous, few, in pairs, pileus reddish purple, fleshy, stalk reddish purple, cylindrical. (H. 2, or more, d. ⅜.) Schæf.

—— Woods. —— *Schæff.* 55.

viscidus. 59. A. Gills purple, 4 in a set, pileus rich brown (d. 2), convex, stalk paler brown, cylindrical (h. 1½, d. about ⅙). Lin. char. "Pileus purplish brown, viscid, gills brownish purple."

—— Plantations. 9. 10.

2. *Stalk central, solid, gills fixed.*

graveolens. 60. A. Gills white (fixed by a small claw), very numerous, irregular, mostly 4 in a set, pileus white (d. 3 to 4), stalk white, tapering (downwards, h. 2, d. 1).

—— Plantations, &c. 5— *Bull.* 585.

fimbriatus. 61. A. Gills greyish watery white, 3 in a set, very long, very narrow, somewhat gelatinous, pileus watery white, funnel-shaped (d. 2½ to 4½), the margin thin, lobed, undulated, curled, stalk dusky watery white, slender, about an inch high. Bolt. A. *infundibuliformis.* Var. 2. With. See page 337.

—— Shady woods. 8. *Bolt.* 61.

depressus. 62. A. Gills white, 4 in a set, pileus pinky, or brownish white, centre much depressed, margin deflected (d. 4 or 5), stalk pinky white (h. 3 to 4, d. ½, thickest downwards).

—— Edgbaston Park. 10. ——

maritimus 63. A. Gills pinky white, 2 or 4 in a set, pileus pinky white, convex (d. ½ nearly), stalk white, pellucid (h. 1, d. $\frac{1}{12}$).

—— On the sea shore at Teignmouth. 10. ——

æstivus. 64. A. Gills watery white, claws pure white (4, or 8 in a set), pileus cream-col. (slightly convex, d. 2), stalk whitish (h. 2, d. ¼), ring permanent.

—— Edgbaston. —— 6. ——

central, solid, gills fixed, white.

65. A. Gills white, fleshy, irregular, connected by transverse ligaments, pileus livid, watery white, striated, bossed, margin torn (d. 1, 2), stalk white, crooked (h. 2, d. $\frac{1}{4}$). *la'cer.*

—— Edgbaston. 10. *Schæff.* 257.

66. A. Gills white, numerous, 2, or 4 in a set, pileus dead white, nearly flat (d. $1\frac{1}{2}$ to 3), stalk white (h. 2, d. $\frac{1}{4}$), pith brownish. *opa'cus.*

—— Woods, heaths, &c. 3 & 9. *Sow.* 142.

67. A. Gills watery white, 2, or 4 in a set, but irregular, pileus yellow brown, scaly (d. $\frac{1}{2}$ to $\frac{3}{4}$), stalk yellow brown, crooked, scored (h. $\frac{3}{4}$ to 1, d. $\frac{1}{8}$, root a round knob). *furfuro'sus.*

—— Under hedges. 6, ——

68. A. Gills whitish, becoming brownish, fleshy, distant, 4 in a set, pileus reddish brown, bossed, cracking (d. 4 to 6), stalk tapering greatly downwards, furrowed (h. 4 to 5, d. $\frac{3}{4}$ at the top). Schæff. Dicks. i. 15. *cras'sipes.*

—— Foot of old trees. 8. *Schæff.* 88. 1. *Sow.* 129.

Obs. Sowerby is of opinion that this is A. *elasticus* of With. See A. *elasticus*, page 346.

69. A. Gills white, short ones solitary, pileus brownish, or reddish, convex (d. 2 to 7), stalk scaly, ring broad, turned down. Lin. char. "Gills halved, solitary, stipe with a curtain, dilated at the summit, ovate at the base." *musca'rius.*

Var. 2. Pileus white, warts yellowish, stalk white.

—— 3. Pileus blood-red, without warts. *Bolt.* 27.

—— 4. Pileus blood-red, warts white. *Bull.* 122. *Schæff.* 27.

—— 5. Pileus pale red, warts reddish. *Bolt.* 139.

—— 6. Pileus pinky brown, warts whitish, flat, thin, ragged. *Schæff.* 90.

—— 7. Pileus pinky brown, sattiny, warts small, angular, hard, greyish, stalk brownish white. *Curt.* 312.

—— 8. Pileus dirty yellow, with dull red clouds. *Curt.* 312.

—— 9. Pileus olive brown, warts black.

—— 10. Pileus olive brown, without warts, gills 4 in a set.

Obs. The warts being the remains of the wrapper, the same species may be sometimes smooth, sometimes warty.—Stackh.

ter'reus. 70. A. Gills white, numerous, eight in a set, pileus brown, shaded, convex, irregular, cracking (d. 1½ to 4), stalk white, conical, rarely central (h. 2½, d. ½).

—— Under trees. 9. *Schæff.* 64. 1. 2. 3.

Var. 2. Gills white, 4 in a set, distant, stalk tapering upwards. *Schæff.* 64. 4.

—— 3. Gills 8 in a set, pileus scaly, stalk thinest in the middle, root bulbous.

—— 4. Pileus livid, conical, bossed, gills dirty white, stalk crooked, Ag. *lividus.* Huds.

—— 5. Gills extremely white (not reaching the stalk), pileus mouse-colour, shaded with brown, stalk cylindrical, thick, dirty white, straight.

—— 6. Gills pinky white, mostly 8 in a set, pileus semi-transparent.

leucocephalus. 71. A. Gills white, 4 in a set, pileus convex, centre mouse-col., margin white, or pinky (d. 1½ to 4), stalk white, cylindrical, crooked, brittle (h. 1 to 2, d. ¼ to ½).

—— In clusters on pasture land. 10. *Bull.* 536.

plumo'sus. 72. A. Gills white, numerous, 3 in a set, pileus hemispherical, mouse-col., with downy or feathery tufts (d. 1½), stalk mouse-col., tufted (h. 4, d. ⅙). Bolt.

—— Woods. 8. *Bolt.* 33.

grac'ilis. 73. A. Gills pure white, strong, not crowded, 8 in a set, pileus pure light brown, flat, thin, bossed (d. 3 to 4), stalk tall, slender, brownish (h. 8. d. ¼).

Var. 1. Gills very much branched, stalk white.

—— Plantations. 8. 9. ——

elas'ticus. 74. A. Gills white, 4 in a set, pileus chesnut, hemispherical, stalk buffy white, tapering upwards (sometimes furrowed, h. 1½ to 2). A. *crassipes.* Schæff.

—— Under oak trees. 9. *Schæff.* 87. 4. 5.

Var. 2. Gills brown white, shallow, 4 in a set, pileus brown, convex, sattiny, stalk white.

—— 3. Pileus rather conical, brown chesnut, very viscid, stalk whitish, cylindrical, curtain white, fugacious.

75. A. Gills white, 4 in a set, pileus dull pink, convex (d. 1 to 1½), stalk pinky brown, cylindrical (pithy, h. 1, to 1½, d. ⅛). BATSCH. *obsoles'cens.*
—— Parks. —— *Batsch.* 102.

76. A. Gills brown white, 4 in a set, pileus cool brown, darker, and woolly in the centre (d. 2 to 4), stalk pale brown, with a buffy tinge, thicker and bulbous at the base (h. 3 to 4, d. ½), ring white, permanent. A. *fusco-pallidus.* Bolt. *stip'itis.*
—— Rare, in woods. 10. *Bolt.* 136.
Var. 2. Gills brown white, 4 in a set, pileus rich brown, stalk pinky, or brownish white, tapering at the base, ring yellowish. A. *melleus.* F. Dan. *Tab.* 1013.
—— 3. Gills white, fleshy, 8 in a set, pileus dark brown and olive, stalk nearly white, cylindrical, curtain and ring yellow (tomentous; a smaller plant).
—— 4. Gills white, 4, or 8 in a set, pileus convex, different shades of brown, stalk nearly cylindrical, brownish, curtain woolly, ring broad, turned down on the stalk, permanent.
—— 5. Gills dusky white, fleshy, tough, distant, (3) 4 in a set, pileus convex, rust-colour, (d. 1), stalk rust-col., tapering upwards, ring dead white, tough, permanent. A. *elasticus.* Bolt.
—— Under oak trees. 10. *Bolt.* 16.
—— 6. Pileus smooth, rich red chesnut, stalk cylindrical, silky, pinky.

75. A. Gills white, in pairs, pileus fox-col., convex, (d. 1 to 1½, margin turned in), stalk brownish (h. 2, d. ¼), ring white, permanent. BOLT. *larici'nus.*
—— On decaying larches. Autumn. *Bolt.* 19.

76. A. Gills white, (3) 4 in a set, changing to pale brown, pileus umber brown, flat, but soon turning up (d. 2, or 3), stalk greyish white, with paler reticulated veins. BOLT. *cyathoi'des.*
—— Under an old melon frame. 2. *Bolt.* 145.

77. A. Gills buffy white, 4 in a set, but irregular, and variously branched, pileus pale brown, with darker circles, slightly convex, margin turned in (d. 1½ to 3), stalk nearly cylindrical, buffy white (h. 1½, d. ½). A. *lactifluus zonarius.* Bull. A. *fuscus.* Schæf. *zona'rius.*
—— In Edgbaston Park. 8. *Schæf.* 235.

Var. 2. Pileus pale grey brown, margin white.

integer. 78. A. Gills white, mostly uniform, pileus of various tints (d. 1 to 4), stalk white (cylindrical, h. $1\frac{1}{2}$ to $2\frac{1}{2}$, d. $\frac{1}{2}$ to $\frac{3}{4}$). Lin. char. "All the Gills equal in size."

Var. 2. Gills uniform, connected by cross threads, pileus pink to lilac. A. *integer*. Bolt.

— Under trees in woods, &c. 8—11. *Bolt.* 1.

—— 3. Gills mostly uniform, a shorter one sometimes intervening, connected by cross threads, pileus crimson. A. *emeticus*. Schæf. *Tab.* 15. 16.

—— 4. Gills often forked, sometimes at both ends, and anastomosing with those on each side, pileus blood red.

—— 5. Pileus delicate grey, changing to lead colour.

—— 6. Pileus clammy, dirty yellow, rather convex, gills yellowish, uniform. A. *luteus*. Huds.

—— 7. Pileus dirty yellowish, or reddish, gills very white, unequal, juice milky, mild.

—— 8. Pileus and stalk of a fine uniform purple blue.

—— 9. Pileus greenish, rather reddish in the centre.

punic'eus. 79. A. Gills white, 4 in a set, pileus pinky, convex (d. $\frac{1}{4}$ to $\frac{3}{4}$), stalk white (often crooked, h. 1, d. $\frac{1}{8}$).

—— On grass plats. 9. ——

trunca'tus. 80. A. Gills dirty white, in pairs, pileus brick col., conical, flat at the top when young (d. 2), stalk whitish, cylindrical, swoln at the root (h. $1\frac{1}{2}$, d. $\frac{3}{4}$). Schæf. A. *viscidus*. Huds.

—— Woods, &c. 9. 10. *Schæf.* 251.

cro'ceus. 81. A. Gills white, (3 or) 4 in a set, pileus rather conical, villous, yellow (d. $\frac{3}{4}$ to $1\frac{1}{2}$), lower part of the stalk villous, yellow (h. 3 to 5, d. $\frac{1}{6}$, thicker downwards). Bolt.

—— Woods. —— *Sow.* 19. *Bolt.* 51. 2.

sor'dido-fla'vus. 82. A. Gills white, fleshy, 2, or 4 in a set, pileus dirty brown yellow, much hollowed (d. 5), stalk white (h. 1, d. nearly 1).

—— Under trees. 8. 9. ——

elephanti'nus. 83. A. Gills yellowish white, fleshy, distant, 4 in a set, pileus brown yellow, changing to black, and cracking (hemispherical, afterwards nearly flat, d. 4 to 6), stalk white (h. 2 to 3, d. 2). Bolt.

—— Under trees. 8. *Bolt.* 28. *Sow.* 36.

84. A. Gills yellow white, uniform, often splitting, connected by filaments, pileus golden yellow, viscid, flat, the margin turned down (d. 5), stalk white (tapering upwards, h. 2, d. 1). Ag. *quinquepartitus*. Lin.-Char. "Pileus rather yellowish, parted, gills whitish, with connecting teeth inwardly." *aura'tus.*

—— Under trees. 8. ——

85. A. Gills whitish, 4 in a set, pileus buffy white, convex, becoming concave, somewhat bossed (d. 1½ to 2, smell goatish), stalk white, crooked, attenuated towards the base (h. 3 or 4, d. about ⅜). Sowerby. *Cos'sus.*

—— In Peckham wood. 10. *Sow.* 121.

Obs. The gills are fixed, or slightly decurrent.

86. A. Gills white, in pairs, pileus white, conical, becoming concave and bossed, margin undulated (d. ½ to 1¼), stalk white, cylindrical, crooked (h. ¼ to ¾, d. $\frac{1}{16}$ to ⅛). Sowerby. *dealba'tus.*

—— Under firs. —— *Sow.* 123.

87. A. Gills dirty white, 4 in a set, long ones narrower and flatter near the stalk, pileus dirty yellow, or whitish, convex, somewhat bossed (becoming flattish, d. 4 to 5), stalk yellowish (h. 1½ to 3, d. ½ to 1). *sejunc'tus.*

—— In woods. Autumn. *Sow.* 126.

88. A. Gills white, fleshy, brittle, 4 in a set, pileus blue green (d. 2 to 3), stalk cylindrical, whitish (h. 3, d. ¼). Ray syn. 2. 3. A. *cæruleus*. Bolt. *vir'idis.*

—— Woods. 8. *Bolt.* 12.

Var. 2. Gills whitish, stalk greenish. A. *viridis*. Huds.

89. A. Gills light brown, few, in pairs, pileus light brown, convex, centre dark, depressed, striated, d. ¼, stalk light brown, h. ½ to ¾, d. not $\frac{1}{16}$. Merulius *fuscus*. With. *fus'cus.*

—— In clusters in parks. Autumn. ——

90. A. Gills brown, in pairs, pileus yellow brown, obtusely conical (margin turned in, h. not ¼), stalk brown, scurfy (h. ¾, d. ⅛), curtain permanent. *constric'tus.*

—— On rotten wood. 9. ——

91. A. Gills light brown, 4 in a set, pileus rich yellow brown, flat but rather bossed (d. 2), stalk white above, yellow brown and woolly below (h. 3, d. ⅜), ring permanent. Bull. A. *limacinus*. Schæf. —— *muco'sus.*

—— Parks. Autumn. *Schæf.* 312.

vacci'nus. 92. A. Gills pale brown, 4, or 8 in a set, pileus brown, scurfy, convex, gently bossed (d. $\frac{1}{2}$ to 3), stalk cylindrical, pale brown (h. 3 to 4, d. $\frac{1}{4}$ to $\frac{1}{2}$). SCHÆF.

—— Plantations. 9. *Schæf.* 25.

Var. 2. Pileus yellow brown with dark blotches, stalk yellow, striated.

sor'didus. 93. A. Gills brown, (3) 8 in a set, pileus darker brown, hollow (convex to funnel-shaped, d. $1\frac{1}{2}$ to $2\frac{1}{2}$), stalk cylindrical, brown. bulbous (h. 2 to 4, d. $\frac{1}{8}$ to $\frac{1}{4}$). DICKS. BOLT.

— Low meadows, &c. 11. 12. *Bolt.* 59. *Dicks.* 3. 1.

spongio'sus. 94. A. Gills cool brown, serrated, pileus chocolate colour, widely conical (d. $1\frac{1}{2}$ to 2), stalk cool brown, spongy, h. 2 to $2\frac{1}{2}$, d. $\frac{1}{2}$ nearly.

—— Parks. Autumn. ——

clava'tus. 95. A. Gills pale brown, pileus dark brown, flat, the margin turned in (d. $\frac{3}{4}$), stalk light grey, reticulated, club-shaped (h. 2 to $2\frac{1}{2}$, d. $\frac{1}{6}$ at the top, $\frac{1}{3}$ at the base).

—— Parks. Autumn. ——

umbra'tus. 96. A. Gills brown, numerous, 4 in a set, pileus pale yellow, centre brown, margin white (d. $1\frac{1}{2}$ to 2), stalk white, h. $1\frac{1}{2}$, d. nearly $\frac{1}{6}$). A. *parasiticus.* Bull.

—— Plantations. 9. *Bull.* 574. 2.

coria'ceus. 97. A. Gills pale brown, narrow, 4 in a set, pileus cool brown, somewhat glossy, nearly flat (d. $1\frac{1}{2}$ to 2), stalk pale brown (h. $1\frac{1}{2}$ to 2, d. $\frac{1}{4}$, straight, thickest above). BATSCH.

—— Plantations, on rotten sticks. 9. *Batsch.* 109.

cacumina'tus. 98. A. Gills deep yellow brown, 4 in a set, pileus pale yellow brown, sharply bossed (convex, d. 1), stalk pale brown (h. 2, d. $\frac{1}{8}$).

—— Plantations. 9. ——

araneo'sus. 99. A. Gills red brown, broad and short, 4 in a set, pileus brown, conical, cracked (d. $1\frac{1}{2}$), stalk brown, tapering upwards (h. 2 to 3, d. $\frac{2}{3}$ to $\frac{3}{5}$). BULL.

—— Parks. 9. *Bull.* 431. 4.

Var. 2. Pileus with black, brown, and chocolate stripes, penetrating through the skin.

hippopi'nus. 100. A. Gills light brown, pileus dark brown, convex (nearly hemispherical, d. $\frac{1}{4}$), stalk light brown (crooked, h. $\frac{1}{4}$, d. not $\frac{1}{12}$).

—— On cones of the Scotch Fir. Autumn.

101. A. Gills olive brown, 2, or 4 in a set, pileus striped, reddish brown and yellow, conical, bossed (d. 2), stalk yellowish white, cylindrical (nearly, h. 2 to 2½, d. ⅙ or ¼). BULL. *rimo'sus.*
—— Under trees. 8. 9. *Bull.* 388. & 599.

102. A. Gills dark cinnamon, not numerous, 4, or 8 in a set, pileus slightly convex, pale cinnamon, margin rather deflected (d. 1 to 3), stalk whitish, nearly cylindrical (h. 2 to 4, d. ¼ to ½). BATSCH. *orichal'ceus.*
—— Plantations. 9. *Batsch.* 184.

103. A. Gills brown, numerous, 2, or 4 in a set, pileus convex, light brown buff, margin whitish (d. 2 to 2½), stalk white, bending, splitting h. 4 or 5, d. ¼). *lacticau'lis.*
—— Amongst leaves. 9. 10. *Bull.* 102. *like it.*
Var. 2. Gills light reddish brown, pileus dark red brown, centre depressed, stalk short.

104. A. Gills light reddish brown, 4 in a set, pileus brown buff, margin whitish (d. 1 to 1½), stalk yellow white (rarely straight, often eccentric, h. 1 to 1½, d. ⅛). BATSCH. *obsole'tus.*
—— Fields. 9. *Batsch.* 103.

105. A. Gills cool brown, numerous, 4, or 8 in a set, pileus brown, gently convex, concave with age, sattiny when dry (d. 2 to 3), stalk brown (h. 1½, d. ⅛). BATSCH. *nu'dus.*
—— Plantations. 9. *Bull.* 439. *lower figures.*

106. A. Gills reddish brown, pileus brown, purplish at the margin (d. 2½), stalk violet, scurfy, bulbous at the base (h. 2½, d. ⅜). BATSCH. *subpurpuras'cens.*
—— Pastures. 9. 10. *Batsch.* 74.

107. A. Gills brown, numerous, 4, or 8 in a set, pileus brown, gently convex, concave when older, sattiny when dry (d. 2 to 3), stalk brown (h. 1½, d. ⅛). *uni'color.*
—— Solitary and in clusters, in plantations. 9.

108. A. Gills brown, changing to a pinky or lilac tinge with age, 4, or 8 in a set, pileus chesnut, hemispherical, rather flatted at the top, margin involute (d. 4), stalk thick, white, or pinky (h. 2, d. 1), curtain cobweb-like. SCHÆF. A. *bulbosus.* Huds. *glauco'pus.*
—— Rare, in plantations. 9. *Bull.* 96. *Schæf.* 53.
Var. 2. Gills brown green, stalk greenish white. A. *varius.* Schæf. *Tab.* 42.

viola'ceus. 109. A. Gills purple, numerous, 8 in a set, pileus purple to brown, convex, margin turned down (d. $\frac{1}{2}$ to 5), stalk purple, cylindrical (bulbous at the base, h. 1 to 4, d. $\frac{1}{4}$ to 1, curtain like a cob-web). Lin. Schæf. Bolt. Lin. char. "Margin of the pileus violet, tomentous, stalk bluish with rust-coloured wool."

—— Woods, &c. 10—12. Bull. 250. *Bolt.* 52.

Var. 2. *nudus.* Without a curtain, gills very irregular. A. *nudus.* Bull. A. *bulbosus.* Huds. Bolt. *Pl.* 147.

cya'neus. 110. A. Gills brown lilac, numerous, 8 in a set, pileus bluish green, gently convex, margin slightly deflected (d. 2 to 3), stalk bluish green, striated, crooked (h. 2 to 3, d. $\frac{1}{4}$ to $\frac{1}{2}$), curtain white (tomentous). Bull. A. *politus.* Bolt.

— Amongst fallen leaves. 10. 11. *Bull.* 170. *Bolt.* 30.

tor'tilis. 111. A. Gills brown, changing to purplish flesh-col., few, 4 in a set, pileus red brown, convex, turning up with age (d. $\frac{2}{8}$ to $\frac{3}{8}$, margin lobed and distorted), stalk brownish, or a dusky flesh-colour (h. $\frac{1}{4}$, d. not $\frac{1}{12}$). Bolt.

—— In rich garden mould. *Bolt.* 41. A.

fla'vidus. 112. A. Gills reddish buff, pileus pale yellow, bossed (obtusely conical, d. 2), stalk pale yellow (h. 2, d. $\frac{1}{4}$).

—— In parks. —— *Schæff.* 35.

Var. 2. Gills brown buff, pileus light buff, stalk white, flesh white.—Possibly distinct.

ru'fus. 113. A. Gills tawny, irregular, pileus bright tawny, glossy (d. 1 to $2\frac{1}{2}$), stalk red brown (generally crooked, h. 2 to 3, d. $\frac{1}{4}$). A. *sericeus.* Bull.

—— In clusters in plantations. 9. *Bull.* 526.

calyci-for'mis. 114. A. Gills buff, very numerous, 4, or 8 in a set, pileus brown buff, entirely inverted (d. 1 to 2), stalk pale brownish buff (h. 2, d. $\frac{1}{8}$).

—— Plantations. 11. *Batsch.* 118.

il'litus. 115. A. Gills buff, narrow, few, 4 in a set, pileus nearly flat, coriaceous, livid tawny (d. $1\frac{1}{2}$), stalk buff, rather thick.

—— Rare, in parks, &c. ——

ru'ber. 116. A. Gills buff, 4 in a set, pileus orange red, flat, margin deflected (d. 1 to 2), stalk reddish, cylindrical (h. 2, d. $\frac{3}{8}$).

—— Woods. 11. ——

Var. 2. Stalk much paler than the pileus, juice yellow. A. *deliciosus*. Bolt. *Plate* 9.

117. A. Gills buff, distant, in pairs, pileus deeper buff with reddish stains, hemispherical, sometimes bossed (d. $1\frac{1}{2}$ to 3), stalk lighter buff, cylindrical (h. $\frac{3}{4}$ to nearly 2, d. $\frac{1}{4}$ to $\frac{1}{2}$, no veil or ring). SCHÆF. SOWERBY. *minia'tus.*

—— Boxhill, Surry. *Schæf.* 313. *Sow.* 141.

118. A. Gills brown buff, 4 in a set, pileus brown, widely conical (d. 3, h. 2), stalk buff, nearly cylindrical, bulbous at the base (h. 2 to 4, d. $\frac{1}{2}$ in the middle, 1 at the base). SOWER. *bulbo'sus.*

—— Fir plantations. Autumn. *Sow.* 180.

Obs. This was supposed by Mr. Sowerby to be the A. *bulbosus* of Huds., of which the following character is given in Fl. Ang. p. 611. "Stipitate, pileus convex, brownish, gills bluish, stalk short, bulbous at the base, violet-coloured." But he is now certain that it is a distinct plant. See A. *glaucopus*, page 351.

119. A. Gills brown yellow, pileus pale yellow, centre darker (rather bossed, d. 1 to $1\frac{1}{2}$). *conna'tus.*

—— In clusters in parks. Autumn.

Var. 2. Gills pale yellow, pileus pale yellow, centre tawny (d. $\frac{1}{2}$ to 2), stalk dirty buff (h. 3, d. $\frac{1}{4}$, several from a root). A. *ramoso-radicatus*. Bolt.

—— Plantations. —— *Bolt.* 148.

120. A. Gills yellow (irregular), 4 in a set, pileus and stalk golden brown (d. of the pileus $\frac{2}{8}$ to $\frac{3}{8}$, h. of the stalk $1\frac{1}{2}$, d. not $\frac{1}{12}$). Lin. char. "Stipitate, pileus convex, viscid, pellucid, and gills yellow, stalk naked." A. *fragilis*. Schæf. *frag'ilis.*

—— Woods amongst moss. 8—10. *Schæf.* 230.

121. A. Gills yellowish, toothed, 4 in a set, pileus brown yellow, convex but irregular, scaly (d. 3), stalk brown yellow, scaly (h. $1\frac{1}{2}$ to 3, d. $\frac{1}{2}$ or more). SCHÆF. *squamo'sus.*

—— On decayed trees. 8—11. *Schæf.* 29. 30.

122. A. Gills pale or dirty yellow, nearly white at the edge, pileus rich brown, margin golden yellow, undulated when fully grown (d. 2 to 4), stalk pale greenish yellow (h. nearly 3, d. $\frac{1}{2}$). A. *limacinus*. Sow. *citri'nus.*

—— Fir plantations. 10. *Sow.* 8.

Obs. The stalk is somewhat pithy, and the whole plant is enveloped in a veil of gluten when young. Sowerby. 128.

perana'tus. 123. A. Gills pale watery straw colour, (3 or) 4 in a set, pileus brown, hemispherical, semi-pellucid (d. 1½ to 3), stalk pale straw colour (ascending), the lower half clothed with yellow wool (h. 3, d. ⅛). Bolt. 229.

—— Moist woods. —— *Bolt.* 58. *Sow.* 37.

Var. 2. Gills pale brownish yellow, pileus and stalk pale yellow. A. *caryophyllæus.* Schæf. *Tab.* 77.

—— 3. Gills pale whitish yellow, pileus yellowish white, flat, stalk tapering upwards, rust-col., and woolly below. *Bull.* 158. 130.

œdemato'pus. 124. A. Gills pale brownish yellow, few, fleshy, in pairs, pileus reddish brown, conical, margin involute (h. 2), stalk dirty brown, thickest in the middle (h. 5 to 6, d. 1 or more). Schæf. A. *rigidus.* Bolt.

—— Plantations. 7. 8. *Bolt.* 43. *Schæf.* 259.

rheoi'des. 125. A. Gills yellow, very irregular, pileus rich orange (convex, scaly, margin involute, d. 4), stalk yellow (h. 2½, d. 1½, curtain yellow, permanent).

—— On stumps of trees. 9. 10. ——

xerampeli'nus. 126. A. Gills golden yellow, 4 in a set, pileus fine lake red to rich orange buff, convex, bossed (d. 3 to 4), stalk buff, shaded with rose, attenuated upwards (h. 3 to 5, d. ½). Schæf. Dicks. i. 15. 131.
A. *cæsareus.* Schæf.

—— Rare, in fir plantations. 7—9. *Sow.* 31.

Var. 2. Pileus rich dark reddish brown, stalk brown red. 132.

—— 3. Pileus and stalk golden brown.

—— 4. Pileus rich red purple, stalk dusky gold-colour. A. *serratus.* Bolt. *Plate* 14.

—— 5. Pileus rich red brown, stalk pinky. *Schæf.* 214.

—— 6. Gills pale buff, pileus peach-bloom-col., convex when young, dimpled when full grown, stalk pale yellow with a pinky tinge. A. *xerampelinus.* Schæf.

olivaceus. 127. A. Gills golden yellow, pileus olive green, slightly dotted, convex (d. 3 to 4), stalk pale rose colour (h. 2, d. ¼). Schæf. A var. of A. *xerampelinus?* 133.

—— Shotover plantations. Sibth. 10. *Schæf.* 204.

128. A. gills reddish grey, pileus yellow brown, convex (margin involute, d. $1\frac{1}{4}$), stalk white (h. 1, d. $\frac{1}{4}$, ring permanent). *littor'eus.*
—— Near the sea shore. 10.

229. A. Gills light brown grey, broad, pileus very dark brown, convex, margin involute (d. nearly $\frac{1}{2}$), stalk black (h. 1 to $1\frac{1}{2}$, not $\frac{1}{12}$). *semiluna'tus.*
—— Parks. Autumn. ——

3. *Stalks central, solid, gills loose.*

130. A. Gills white, irregular, pileus convex, white (d. 4 or 5), stalk cylindrical, white (h. 4, d. $\frac{1}{2}$ or more, ring permanent, broad, white). Bolt. A. *bulbosus.* Schæf. With. *verna'lis.*
—— In rich soil. 4—10. *Schæf.* 241. *Bolt.* 48.

Obs. This is believed by Mr. Sowerby to be only a var. of A. *muscarius.* Lin. See page 345.

Var. 2. Pileus dusky mouse-colour, with paler warts. A. *verrucosus.* Bolt. *Plate* 47.

—— 3. Pileus scarlet, with white blotches, the fragments of the inner wrapper. A. *nobilis.* Bolt. *Pl.* 46.

—— 4. Pileus scurfy, stalk hardly two inches high.

131. A. Gills brownish white, thin, uniform, pileus white, (acutely) conical, tomentous (h. 1), stalk white, attenuated upwards (h. 2, d. $\frac{1}{12}$). Bolt. *confer'tus.*
—— Amongst bark in hot-houses. 11. *Bolt.* 18.

132. A. Gills white, pileus white, convex, or widely conical, tufted (with cottony hairs, d. 3 to 4), stalk white, club-shaped downwards (h. 3 to 4, d. $\frac{1}{4}$ above, $\frac{1}{2}$ below, ring permanent). Bull. A. *cepæstipes.* Sow. 2. *right-hand fig.* *creta'ceus.*
—— Bark-beds of hot-houses. *Bull.* 374.

Obs. This plant is by Sowerby considered as the same as A. *luteus* With., since the white and yellow kinds differ in nothing but colour, but Withering thinks it more nearly allied to A. *confertus*, and that they will prove to be the same species. See A. *luteus*, page 359.

133. A. Gills whitish, in pairs, pileus buff, or whitish, nearly hemispherical, with erect reddish hairs (d. $\frac{1}{8}$ to $\frac{1}{4}$), stalk reddish brown, setaceous, hairy (h. $1\frac{1}{2}$). A. *pilosus.* Huds. *hirsu'tus.*
—— Rotting leaves of Ilex *Aquif.* 9. 11. *Sow.* 164.

albus. 134. A. Gills white, numerous, (3 or) 4 in a set, pileus white, obtusely conical, brown at the top (h. $1\frac{1}{2}$), stalk white, attenuated upwards (h. 5, d. $\frac{1}{2}$ at the base, $\frac{1}{4}$ at the apex) SCHÆF. BOLT.

—— Sheep pastures. — 8. *Bolt.* 153.

Var. 2. Gills few, pileus wholly white (convex, d. $\frac{1}{2}$ to 1), stalk white (h. $1\frac{1}{2}$ to $2\frac{1}{2}$, d. $\frac{1}{8}$ above, thicker below). A. *alumnus.* Bolt. *Pl.* 155.

—— On old plants of A. *integer.* — *Bull.* 256.

splendens. 135. A. Gills pure white, numerous, 2, or 4 in a set, pileus like tarnished copper, glossy, obtusely conical (d. 3 to 7), stalk brownish white, attenuated upwards (h. 4 to 6, d. 1 below, $\frac{1}{2}$ above).

—— On stumps of trees. 7. ——

radicatus. 136. A. Gills white, few, 4 in a set, pileus brownish, obtusely conical (d. 3 to 4), stalk brown, attenuated upwards (h. 5 to 6, root long, fusiform). RELHAN. A. *longipes.* Bull.

—— Solitary in a clayey soil. — *Bull.* 232. & 515.

Var. 2. Stalk not two inches high, as large as a finger, root 14 inches long, and proportionally large. RELH.

oreadus. 137. A. Gills brownish watery white, 2, or 4 in a set, pileus pale brown, convex, irregular (d. 1 to $1\frac{3}{4}$), stalk whitish, becoming browner, very tough, rarely central (h. $1\frac{1}{2}$, d. $\frac{1}{8}$). BOLT.

—— Pastures in fairy rings. 9. 10.

Obs. Bolton has given it a name from the Fairies or Nymphs of the mountains, why Dr. Withering has changed it to *Orcades* I cannot say, perhaps it is an error of the press for *Oreades.*

Var. 2. Gills cream-col., pileus buff, stalk mealy.

—— 3. Pileus yellow brown, more fleshy, more regularly convex. *Bolt.* 151.

pulvinatus. 138. A. Gills greyish white, 4 in a set, pileus convex, brown mouse-colour (d. 3 or 4), stalk dark grey, tapering upwards (h. 3 to 4, d. $\frac{1}{2}$), wrapper permanent (broad, lobed). BOLT.

—— Woods, &c. rare. 9. *Bolt.* 49. syn. excluded.

horizontalis. 139. A. Gills yellowish white, 4 in a set, pileus yellowish brown, convex, not fully circular (d. 1), stalk bent horizontally. BULL.

—— On old trees. WOODW. — *Bull.* 324.

clavus. 140. A. Gills white, in pairs, pileus depressed in the centre (pale orange, or scarlet, convex, d. $\frac{1}{10}$ to

$\frac{3}{10}$), stalk very long and slender (pale orange, h. $\frac{3}{4}$ to 1, not $\frac{1}{12}$, root very long). Lin. Schæf. Bull. Bolt. Lin.-Char. "Stipitate, pileus yellow, convex, striated, gills & stalk white."
— Amongst moss, &c. 7. *Schæf.* 59. *Bolt.* 39. B.
Var. 2. Pileus and stalk pinky white. *Bull.* 569. 2.

141. A. Gills white, numerous, irregular, pileus rich reddish yellow (nut-colour), gently convex (d. $2\frac{1}{2}$), stalk brown yellow (tapering upwards, h. 4, d. $\frac{1}{4}$). *avella'neus.*
—— Very rare. 7. ——

142. A. Gills yellowish white (loose?), pileus yellow, convex, depressed in the centre (d. 4), stalk yellow, thickish, smooth, juice yellow. Lin.—Char. "Stipitate, pileus yellow, convex, gills white." *Geor'gii.*
—— Woods and pastures. 9.
Var. 2. Very large, gills pale, pileus 18 inches over, stalk thick as a man's wrist, curtain coriaceous, juice yellowish.
—— Sea coast, Weymouth, &c. Stackh.

143. A. Gills yellow brown, pileus dark yellow brown, widely conical, bossed (d. 1), stalk brown (cylindrical, h. 1 to $1\frac{1}{4}$). *lu'teo-fus'cus.*
—— Parks. —— Autumn. ——

144. A. Gills rich ochrey brown, pileus rich yellow brown (rather conical, d. 4 or 5), stalk dirty white (h. 3 to 5, d. $\frac{1}{2}$), ring permanent (deflected). *collini'tus,*
—— Woods. 10. *Sow.* 9.

145. A. Gills pale brown, uniform, pileus orange-brown, rather bossed (d. 3), stalk pale cinnamon (h. 4, d. $\frac{1}{4}$), wrapper permanent (3-lobed). Schæf. A. *trilobus.* Bolt. See A. *volvaceus.* *ba'dius.*
—— Dry woods. 8. *Schæf.* 245. *Bolt.* 38. 2.

146. A. Gills nearly uniform, blackish brown, pileus cylindrical, channelled, mouse-colour, reddish at top (h. $\frac{3}{8}$, d. nearly $\frac{3}{8}$), stalk white (h. $\frac{3}{4}$, d. $\frac{1}{12}$). *canalicula'tus.*
—— In unfinished houses, &c. 7. ——

147. A. Gills pale yellowish brown, 4 in a set, pileus dirty mealy white on a pale ground, spreading, bossed (h. $\frac{1}{4}$), stalk pale yellowish brown (h. $\frac{1}{2}$ to 1, d. $\frac{1}{12}$). *glan'dicu'lyx.*
—— Plantations. ——

cor'neus. 148. A. Gills pale buffy brown, 2, or 4 in a set, pileus pale brown (d. $\frac{1}{12}$ to $\frac{1}{8}$), stalk brown, crooked (h. $\frac{1}{4}$ to $\frac{3}{4}$, not thicker than a small needle).
—— Plantations. 8.

lycoper'donoi'des. 149. A. Gills blackish brown, pileus dirty white, globular (d. $\frac{1}{8}$ to $\frac{1}{2}$), stalk white (h. $\frac{1}{4}$ to $\frac{1}{2}$, d. $\frac{1}{12}$). BULL.
— On the pileus and gills of Agarics. 10. *Bull.* 166.

ru'bens. 150. A. Gills ruby red (3 or) 4 in a set, pileus dark red, gently conical (d. $1\frac{1}{2}$), stalk bright red (h. 4 to 5, d. $\frac{1}{6}$). BOLT.
—— Shibden-Hall wood. BOLT. 10. *Bolt.* 36.

angula'tus. 151. A. Gills reddish brown, irregular, pileus dead yellow brown, widely conical, very glossy (d. nearly 1), stalk darker (h. 2, d. $\frac{1}{12}$).
—— Found at Pendarvis, by Mr. STACKH. 8.

auran'tius. 152. A. Gills loose, pinky flesh-colour, 4 in a set, pileus pale pink, stalk pinky white. See A. *aurantius* var. 3. Division 5.

mollius'culus. 153. A. Gills pink, 2 in a set, pileus fox-coloured, nearly flat, the margin undulated (d. $2\frac{1}{2}$ to $3\frac{1}{2}$), stalk pithy, buffy white, cylindrical (h. 2, d. $\frac{1}{4}$). SOWERBY.
—— On rotten wood, &c. 8. *Sow.* 174.

campes'tris. 154. A. Gills pinky, changing to dark liver-colour, crowded, irregular, pileus convex, white to brown, stalk white, cylindrical, curtain white. Lin.—Char. "Stipitate, pileus convex, scaly, whitish, gills reddish."

Var. 1. Pileus smooth, or only a little scaly when old (d. 2 to 4, stalk h. 2 to 3, d. $\frac{1}{2}$).
—— Parks and pastures. 8. 10. *Bolt.* 45.

Var. 2. Pileus rough, and scurfy, or hairy. *Schæf.* 33.

—— 3. Pileus beautifully tufted with pencils of brown hair, stalk attenuated downwards. *Schæf.* 33. f. 5. 6.

—— 4. Gills whitish, slowly changing to liver-colour.

la'tus. 155. A. Gills pale flesh-colour, 8 in a set, but irregular, pileus brownish mouse-colour, convex, rather bossed (d. 2 to 5), stalk white, cylindrical (h. 2 to 4, d. $\frac{3}{8}$ to $\frac{5}{8}$). BOLT.
—— On turf. 7—9. *Bolt.* 2.

Var. 2. Plant when young, enclosed in a wrapper. A. *volvaceus*. Bull. *Tab.* 262.

156. A. Gills brown red, pileus red buff, whitish at the margin, convex (d. 2 to 4), stalk white, scurfy (h. $2\frac{1}{2}$, d. $\frac{1}{3}$). Bull. *crustuli'niformis.*

—— Copse under Shotover Hill. 9. *Bull.* 308.

157. A. Gills buff, very broad, 4 in a set, pileus bright fawn-colour, convex, mealy (d. 1 to 2), stalk chesnut (h. 1 to 3, d. $\frac{1}{4}$). Bul. *T.* 574. 1. *hinnu'leus.*

—— Pine plantations. M. Velley. *Sow.* 173.

158. A. Gills brown buff, narrow, pileus nut-brown, convex, scurfy (d. 1 to $1\frac{1}{2}$), stalk nut-brown, striated (h. $1\frac{1}{2}$, d. $\frac{1}{8}$). Bull. A var. of A. *hinnuleus?* *lanugino'sus.*

—— Parks. Autumn. *Bull.* 370.

159. A. Gills greenish buff, 4 in a set, pileus buff, with dark spots, centre blackish (d. 2), stalk solid, whitish above, club-shaped and blackish below, root with reticulated fibres. Sow. *Melea'gris.*

—— In a hot-bed. Lady Arden. 5. *Sow.* 171.

Obs. In drying it becomes of a blush red, except the lower part of the stalk, which retains the darker hue. Sow.

160. A. Gills yellow, (3 or) 4 in a set, larger ones grooved along the margin, pileus orange, convex, but depressed (d. $\frac{3}{4}$ to $3\frac{1}{2}$), stalk yellow, rich brown below (velvety, h. $1\frac{1}{2}$ to 2, d. $\frac{1}{8}$ to $\frac{3}{8}$). A. *velutipes*. Bolt. *sulca'tus.*

— In clusters on fallen trees. 2. & 11. *Bolt.* 135.

161. A. Gills yellow, numerous, uniform, pileus yellow, conical, tufted (with the remains of its wrapper, margin crenate, undulated, h. $1\frac{1}{2}$), stalk tapering upwards (h. $2\frac{1}{2}$, d. $\frac{1}{4}$ at the permanent ring). Bolt. A. *cepæstipes*. Sow. *lu'teus.*

—— Bark in a pine stove. 8. *Bolt.* 50. *Sow.* 2.?

Var. 2. Colour of the whole plant a chalky white. *Sow.* 2. *right-hand fig.* See A. *cretaceus*, page 355.

Obs. Sowerby thinks it fully characterized by its onion-like stalk, and on that account he has given it the name of *cepæstipes*.—Bolton's fig. represents it as thickest at the base.

162. A. Gills yellowish, few, uniform, pileus brown yellow, striated, nearly cylindrical (h. $\frac{1}{10}$), stalk white (h. $\frac{1}{2}$ to 1, very slender). Schæf. Dicks. *minu'tulus.*

—— In pastures. Autumn. *Schæf.* 308.

auran'-tius. 163. A. Gills loose, yellow, 2, 3, or 4 in a set, pileus and stalk pinky. A. *aurantius.* var. 4. See Division 5.

du'rus. 164. A. Gills loose, pale grey, very numerous, (3 or) 4 in a set, pileus pale dusky buff, convex (d. 2 to 4), stalk pale whitish buff (h. 2 to 3, d. $\frac{2}{8}$ to $\frac{3}{8}$, whole plant hard and brittle). Bolt. A. *cinerescens.* Bull.

—— In dry barren pastures. *Bolt.* 67. 1. *Bull.* 428. 2.

mammo'-sus. 165. A. Gills yellow grey, 4 in a set, pileus convex, with a nipple-like point in the centre, grey brown (d. 3), stalk grey brown, cylindrical (h. 4 to 5, d. $\frac{1}{2}$). Lin. Bolt. Lin.—Char. "Stipitate, pileus convex, acuminate, grey, gills convex, grey, crenate, stalk naked."

—— In woods. 9. *Bolt.* 69.

lu'ridus. 166. A. Gills blue grey, numerous, uniform, pileus dirty olive brown, slimy, obtusely conical, margin irregularly lobed (h. $2\frac{1}{2}$, d. $2\frac{1}{2}$), stalk dirty olive brown, crooked (h. 4, d. $\frac{1}{2}$). Bolt.

—— On Gibbet-hill near Halifax. —— *Bolt.* 25.

columba'-rius. 167. A. Gills bluish, or lead-colour, 4 in a set, pileus darker, convex, bossed, tomentous (d. nearly 1), stalk bluish, cylindrical, curved at the base (h. 2, d. $\frac{1}{6}$). Bull. Sow.

—— Not uncommon. *Bull.* 413. 1. *Sow.* 161.

Var. 2. Dark brown, or fox-coloured.

4. *Stalks central, tubular, gills decurrent, white.*

niv'eus. 168. A. Gills white, in pairs, pileus white, viscid, flattish (not fleshy), stalk white, cylindrical (h. 1 to $2\frac{1}{2}$, d. $\frac{1}{6}$). Schæf.

—— Amongst firs. Velley. *Schæf.* 232. *not good.*

cæspito'-sus. 169. A. Gills watery white, few, broad (2, or 4 in a set), pileus very light brown, convex (d. $\frac{1}{2}$ to $1\frac{1}{2}$), stalk white, cylindrical (h. $\frac{3}{4}$ to $1\frac{1}{4}$, d. $\frac{1}{8}$). Bolt.

—— In peat pits. —— *Bolt.* 41. C.

farina'-ceus. 170. A. Gills dilute pink, margin crenate, 4 in a set, pileus pinky brown, bossed (d. $\frac{1}{2}$ to 1), stalk very pale pinky brown, thickest at the top (h. 4, d. $\frac{1}{8}$). Huds.

—— In woods, &c. 8—10. *Schæf.* 13.

Var. 2. Gills in pairs, stalk thickest at the base when young.

171. A. Gills pale pink, margin deep red, pileus pale pink, cylindrico-conical (h. $\frac{1}{10}$), stalk pink (h. 1, not thicker than a strong bristle). *rubeola'rius.*
—— On rotten sticks, in parks. ——

172. A. Gills pale rose-colour, broad, tough, distant, 4 in a set, pileus pale brown, bossed, irregular, oblique (d. 2), stalk whitish, cylindrical, flattened, and larger at the top (h. 2, d. $\frac{1}{4}$). Bolt. *irregula'ris.*
—— In dry barren pastures. 8. 9. *Bolt.* 13.

173. A. Gills orange, pairs about 20, pileus orange, depressed in the centre (d. $\frac{1}{3}$ or $\frac{1}{4}$), stalk orange (h. $\frac{1}{2}$ or $\frac{3}{4}$, thick as a pin), A. *corticalis.* Bull. *par'vus.*
—— Amongst moss. 8. *Bull.* 519. 1. B. C.
Var. 2. Gills pale orange, 4 in a set, pileus orange, the centre bluish purple, stalk deep orange below, paler above. *Battar.* 28. y.

174. A. Gills deep buff, 4 in a set, large ones very broad, pileus buff, centre depressed (d. 1 to 3), stalk reddish buff, cylindrical (h. 2, d. $\frac{1}{6}$ or $\frac{1}{4}$). Bull. *umbilica'tus.*
—— Pastures, &c. 10. *Bull.* 411. 2.

175. A. Gills primrose-col., 4 in a set, pileus brown red in the centre, margin yellow (convex, d. $\frac{3}{4}$), stalk yellow, tapering downwards (h. 4, d. $\frac{1}{6}$). *pri'mula.*
—— In clusters in plantations, rare. 10. ——

5. *Stalks central, tubular, gills fixed, white.*

176. A. Gills (white, uniform, or 2, or 4 in a set) broader at the base, pileus plaited, membranous (watery white, convex, d. $\frac{1}{8}$ to $\frac{3}{4}$, stalk whitish, h. $\frac{1}{2}$ to $2\frac{1}{2}$, d. setaceous to $\frac{1}{12}$). Lin. Huds. Bolt. Merulius *umbelliferus.* With. *umbellif'erus.*
—— On dead leaves, &c. 8—11. *Bolt.* 39. A.

177. A. Gills white, uniform, 4—10, pileus whitish, convex, d. $\frac{1}{6}$ to $\frac{1}{2}$, stalk brown, tomentous, setaceous, h. $\frac{1}{8}$ to more than 1. Batsch. Mer. *squamula.* With. *squam'ula.*
—— On dead leaves. Relh. Autumn. *Sow.* 93.

178. A. Gills white, numerous, 4 in a set, pileus white, smooth, convex, buffy in the centre (d. 1 to $1\frac{1}{2}$), stalk white, thickest downwards (h. 2 to 3, d. $\frac{1}{8}$). *nemora'lis.*
—— Woods. 10. *Bull.* 585. 2.
Var. 2. Pileus concave in the centre, stalk cylindrical.

Var. 3. Pileus conical, margin unequal, stalk cylindrical.

—— 4. Gills yellow white, stalk light orange, splitting.

concin'nus. 179. A. Gills white, numerous, broad, (3 or) 4 in a set, pileus dark mouse-colour brown, obtusely conical (somewhat campanulate when young, d. 1 to 2), stalk white, cylindrical (h. 2 to 3, d. $\frac{1}{6}$ to $\frac{1}{4}$). Bolt.

—— Moist places in woods. 9. *Bolt.* 15.

va'rius. 180. A. Gills white, not numerous, 2, or 4 in a set, pileus conical, striated (h. $\frac{1}{2}$ to 1), stalk cylindrical, glossy, stiff, size of a crow-quill.

Var. 1. Gills whitish, 4 in a set, pileus pale brown, margin plaited (h. $\frac{1}{2}$ to 1), stalk whitish, crooked and tomentous at the base. *Bull.* 518. D.

—— 2. Gills white, anastomosing, 2, 3, or 4 in a set, pileus purplish brown (conical, h. $\frac{1}{2}$ to $\frac{3}{4}$), stalk bluish brown (h. $1\frac{1}{2}$, d. $\frac{1}{8}$). A. *conicus.* Huds. A. *galericulatus.* Schæf. Sow. Schæff. 52. 1—6. *Sow.* 52.

—— 3. Gills white, four in a set, connected by threads to the pileus, pileus brown, somewhat conical, d. $\frac{1}{2}$ to $1\frac{1}{2}$, stalk ending in a pyriform bulb (h. $1\frac{1}{2}$ to $3\frac{1}{2}$, d. $\frac{1}{8}$).

—— 4. Gills white, 2, or 4 in a set, pileus brownish white, with purple dots, conical, h. $\frac{1}{2}$, stalk white, h. 1 to $1\frac{1}{2}$, d. nearly $\frac{1}{8}$.

—— 5. Gills white with purple blotches, 2, or 4 in a set, pileus whitish, with purplish brown blotches, conical, h. $\frac{1}{2}$, stalk brown, h. 2 to 3, d. nearly $\frac{1}{8}$.

—— 6. Gills white, in pairs, long ones splitting, pileus conical, acuminate, brown mouse-colour, h. $\frac{1}{2}$ to 1, stalk paler, feeble, h. 2 to 3, root thick, crooked.

—— 7. Gills white, in pairs, pileus dark brown, conical, h. $\frac{1}{4}$, stalk grey, h. $\frac{1}{2}$ to 1, d. not $\frac{1}{12}$. *Bull.* 518. C.

—— 8. Gills white, 2, or 4 in a set, pileus black above, white below (h. $\frac{1}{4}$), stalk black below, white above (base feathery, h. 3, d. $\frac{1}{8}$). A. *atro-albus.* Bolt. *Plate* 137.

compres'sus. 181. A. Gills white, fleshy, few, 2 to 8 in a set, pileus brown, irregular (d. 1 to $2\frac{1}{2}$), stalk white, compressed (h. 2 to 3, d. $\frac{1}{4}$ to $\frac{1}{2}$).

—— On the ground. 6. ——

182. A. Gills watery brownish white, 4, or 8 in a set, shining at the edges, pileus pale watery brown, convex but flatted (h. 1 to 2½), stalk white (h. 2 to 4, d. ⅙ or ¼). *argen'teus.*
—— In clusters, in parks. 4—8.

183. A. Gills brownish white, few, in pairs, pileus golden brown, convex, bossed (d. ½), stalk brown, thicker (and flatted at the top, h. 1½ to 2, d. ⅛). BATSCH. *auric'omus.*
—— Roots of filbert trees. 11. *Batsch.* 21.

184. A. Gills white, numerous, uniform, pileus light brown, with bluish lilac tints, convex, margin striated (d. 1½ to 3), stalk white (h. 2 to 3, d. ½), ring white, permanent. SCHÆFF. A. *badius.* F. Dan. *plum'beus.*
—— In pastures. 10. *F. Dan.* 1014. *Schæf.* 85. 86.
Var. 2. Pileus very pale bluish lilac. A. *hyalinus.* Schæf. *Tab.* 244.

185. A. Gills brownish white, 4 in a set, pileus cinnamon, bossed (d. 1 to 2½), stalk brownish white, cylindrical (h. 2 to 3½, d. ¼ to ½). *ova'lis.*
—— Fir plantations. 9. 10. *Bull.* 443. *like it.*
Var. 2. Stalk rich cinnamon colour, like the pileus, furnished with a ring.

186. A. Gills purplish greenish white, 4 in a set, but irregular, connected by filaments to the pileus, pileus (convex, bossed), boss reddish brown, margin purplish (d. 1½ to 2), stalk purplish white (h. 2, d. ¼). *purpuras'cens.*
—— Edgbaston. 7. ——

187. A. Gills whitish, numerous, 4 or 8 in a set, pileus convex, centre brown, margin blue (d. 1½ to 2), stalk pale brown (h. 2, d. ¼), root large, bulbous. *subcæru'leus.*
—— Plantations. 10. ——

188. A. Gills white, (3 or) 4 in a set, pileus purplish, somewhat bossed (hemispherical when young; afterwards horizontal, pale brown, d. ½ to 1), stalk cylindrical, purple (h. 1½ to 2, d. ⅛). BOLT. *purpu'reus.*
—— Fir plantations. 6. *Bolt.* 41. B.

189. A. Gills pale brown, 4 in a set, connected to the pileus by ligaments, pileus pale brown, flat, bossed (d. 1½), stalk pale brown (h. 4, d. ⅛). *liga'tus.*
—— Edgbaston Park. 11.

parti'tus. 190. A. Gills pale brown, few, 2, or 4 in a set, pileus conical, pale brown, sides plaited (h. $\frac{1}{2}$), stalk whitish brown, splitting at the top.

—— Amongst moss, in plantations. 11. ——

Var. 2. Gills regularly in pairs, stalk white above, mouse-colour below, 2 inches high.

pyrami-da'tus. 191. A. Gills light brown, broad, pileus dark red brown, conical (h. nearly 1), stalk white (h. $1\frac{1}{2}$, d. $\frac{1}{8}$). SCHÆF.

—— Parks. —— *Schæff.* 229.

fibro'-sus. 192. A. Gills pale brown, 4 in a set, pileus pale reddish brown, conical, smooth (h. $\frac{1}{2}$ to 1), stalk white, splitting (h. 3 to 4, d. $\frac{1}{6}$).

—— Clustered, in parks. 9. ——

octogo'-nus. 193. A. Gills pale brown, mostly 4 in a set, some in pairs, broader, pileus brown, convex, 8-cornered (d. $\frac{5}{8}$, stalk watery brown, h. $1\frac{1}{2}$, nearly $\frac{1}{8}$).

—— Edgbaston Park. 8. ——

dehis'-cens. 194. A. Gills tawny brown, 3, or 4 in a set, numerous, longest straight; pileus convex of the same colour as the gills, cracking (d. 2 to 3), stalk tawny (h. about 2, d. about $\frac{1}{3}$).

—— In the Water Gate, Burks. 9. *Bolt. dr.*

Descr. The *Root* a little swelled, and sending off brown fibres. *Stalk* cylindrical, often curved, sometimes quite erect, of a pale tawny brown on the outside, while young solid, but soon becoming hollow, the substance of the flesh white and spungy. *Curtain* cobweb-like, vanishing in the infancy of the plant, and leaving no vestige. *Gills* 3, or 4 in a set, tawny brown, numerous, brittle, straight, and adhering by their base to the top of the stalk. *Pileus* of the same colour as the gills, darkest near the centre. In dry weather the outer coat in full grown plants is cracked, and torn in various directions, exposing the internal white substance to view. BOLTON MSS.

lachry-ma'lis. 195. A. Gills deep red brown, not numerous, 4 in a set, pileus ochrey brown, striated, depressed in the centre (d. $\frac{1}{2}$ to 1), stalk red brown (h. $1\frac{1}{2}$ to 2, d. $\frac{1}{8}$ to $\frac{1}{6}$). BATSCH.

—— Hedge-banks. 11. *Batsch.* 8.

Var. 2. Pileus conical, gills hanging below its margin. *Batsch.* 7.

—— 3. Stalk shorter, d. $\frac{1}{6}$, juice of the gills like watery milk. STACKH. A distinct species?

circum-sep'tus. 196. A. Gills reddish brown, 4 in a set, pileus whitish brown, scurfy, convex, depressed, stalk whitish brown, turned up at the base. (h. 2 to $2\frac{1}{2}$, d. $\frac{1}{8}$). BATSCH.

—— In pastures. 10. *Batsch.* 98. ——

Var. 2. Gills orange brown, pileus nearly hemispherical, whitish brown, d. $1\frac{1}{2}$, powdery, stalk whitish brown, h. $1\frac{1}{2}$).

197. A. Gills purplish brown, in pairs, pileus buff, becoming lead-colour, obtusely conical (d. $\frac{1}{2}$ to 1), stalk buffy white, crooked (h. 3, d. $\frac{1}{8}$). *stria'tus.*
BULL. *Tab.* 552. 2. SOW.
—— In clusters on willow stumps. *Sow.* 166.

198. A. Gills purplish brown, broad, thin, pileus light brown, hemispherical (d. 1), stalk reddish brown (h. $2\frac{1}{2}$, d. $\frac{1}{8}$). A var. of A. *semiglobatus ?* *fus'co-purpu'reus.*
—— Parks. ——

199. A. Gills nut-brown, 4 in a set, hanging below the margin of the pileus, pileus deep buff, obtusely conical, margin dark brown (h. $\frac{1}{2}$), stalk nut-brown, smooth, splitting (h. $3\frac{1}{2}$, d. $\frac{1}{8}$). *te'ner.*
SCHÆF.
— Amongst moss, &c. 10. *Schæff.*70. *Bull.*535.1.

200. A. Gills brown, broad, 4 in a set, pileus rich nut-brown, hemispherical (d. 1 to $1\frac{1}{2}$), stalk rich brown, crooked. BULL. *xyloph'ilus.*
— Alder stumps. 8. *Bull.*530.2. L.M.2. *Sow.*167.

201. A. Gills rich dark brown, mottled, 4, or 8 in a set, pileus pale yellow brown, convex, bossed (h. $1\frac{1}{2}$ to 2), stalk pale brown (h. 4 to 6, d. $\frac{3}{10}$ to $\frac{1}{2}$). *chocola'tus.*
—— In clusters amongst grass. 9. ——

202. A. Gills dark cinnamon, 4 in a set, pileus brown yellow, convex, bossed, margin deflected (d. $1\frac{1}{2}$ to 2), stalk brown yellow, splitting (h. 2 to 4, d. $\frac{1}{4}$). A. *croceus.* SCHÆF. *fus'co-fla'vus.*
—— Pastures. 10. *Schæff.* 4.

Var. 2. Pileus regularly convex, stalk short, thin, with a slender hollow.

203. A. Gills red chesnut, 2, or 4 in a set, pileus chesnut, small, flattish, depressed (d. $\frac{1}{2}$ to $\frac{3}{4}$), stalk fox-colour (h. 2 to 4, d. $\frac{1}{4}$). *vulpi'nus.*
—— Amongst moss, in Plantations. 8—10.

204. A. Gills purplish brown, pileus bluish, centre brown (d. 1 to $2\frac{1}{2}$, convex), stalk pale blue (club-shaped at the base, h. 2 to $4\frac{1}{2}$, d. $\frac{1}{4}$ to $\frac{1}{2}$). BATSCH. *ferrugi-nas'cens.*
—— Plantations. 9. *Batsch.* 187.

parti'tus. 190. A. Gills pale brown, few, 2, or 4 in a set, pileus conical, pale brown, sides plaited (h. $\frac{1}{2}$), stalk whitish brown, splitting at the top.

—— Amongst moss, in plantations. 11. ——

Var. 2. Gills regularly in pairs, stalk white above, mouse-colour below, 2 inches high.

pyrami-da'tus. 191. A. Gills light brown, broad, pileus dark red brown, conical (h. nearly 1), stalk white (h. $1\frac{1}{2}$, d. $\frac{1}{8}$). SCHÆF.

—— Parks. —— *Schæff.* 229.

fibro'sus. 192. A. Gills pale brown, 4 in a set, pileus pale reddish brown, conical, smooth (h. $\frac{1}{2}$ to 1), stalk white, splitting (h. 3 to 4, d. $\frac{1}{6}$).

—— Clustered, in parks. 9. ——

octogo'nus. 193. A. Gills pale brown, mostly 4 in a set, some in pairs, broader, pileus brown, convex, 8-cornered (d. $\frac{5}{8}$, stalk watery brown, h. $1\frac{1}{2}$, nearly $\frac{1}{8}$).

—— Edgbaston Park. 8. ——

dehis'cens. 194. A. Gills tawny brown, 3, or 4 in a set, numerous, longest straight; pileus convex of the same colour as the gills, cracking (d. 2 to 3), stalk tawny (h. about 2, d. about $\frac{1}{3}$).

—— In the Water Gate, Burks. 9. *Bolt. dr.*

Descr. The *Root* a little swelled, and sending off brown fibres. *Stalk* cylindrical, often curved, sometimes quite erect, of a pale tawny brown on the outside, while young solid, but soon becoming hollow, the substance of the flesh white and spungy. *Curtain* cobweb-like, vanishing in the infancy of the plant, and leaving no vestige. *Gills* 3, or 4 in a set, tawny brown, numerous, brittle, straight, and adhering by their base to the top of the stalk. *Pileus* of the same colour as the gills, darkest near the centre. In dry weather the outer coat in full grown plants is cracked, and torn in various directions, exposing the internal white substance to view. BOLTON MSS.

lachryma'lis. 195. A. Gills deep red brown, not numerous, 4 in a set, pileus ochrey brown, striated, depressed in the centre (d. $\frac{1}{2}$ to 1), stalk red brown (h. $1\frac{1}{2}$ to 2, d. $\frac{1}{8}$ to $\frac{1}{6}$). BATSCH.

—— Hedge-banks. 11. *Batsch.* 8.

Var. 2. Pileus conical, gills hanging below its margin. *Batsch.* 7.

—— 3. Stalk shorter, d. $\frac{1}{6}$, juice of the gills like watery milk. STACKH. A distinct species?

circumsep'tus. 196. A. Gills reddish brown, 4 in a set, pileus whitish brown, scurfy, convex, depressed, stalk whitish brown, turned up at the base. (h. 2 to $2\frac{1}{2}$, d. $\frac{1}{8}$). BATSCH.

—— In pastures. 10. *Batsch.* 98. ——

Var. 2. Gills orange brown, pileus nearly hemispherical, whitish brown, d. $1\frac{1}{2}$, powdery, stalk whitish brown, h. $1\frac{1}{2}$).

197. A. Gills purplish brown, in pairs, pileus buff, becoming lead-colour, obtusely conical (d. $\frac{1}{2}$ to 1), stalk buffy white, crooked (h. 3, d. $\frac{1}{8}$). BULL. *Tab.* 552. 2. SOW. *stria'tus.*

—— In clusters on willow stumps. *Sow.* 166.

198. A. Gills purplish brown, broad, thin, pileus light brown, hemispherical (d. 1), stalk reddish brown (h. $2\frac{1}{2}$, d. $\frac{1}{8}$). A var. of A. *semiglobatus ?* *fus'co-purpu'reus.*

—— Parks. ——

199. A. Gills nut-brown, 4 in a set, hanging below the margin of the pileus, pileus deep buff, obtusely conical, margin dark brown (h. $\frac{1}{2}$), stalk nut-brown, smooth, splitting (h. $3\frac{1}{2}$, d. $\frac{1}{8}$). SCHÆF. *te'ner.*

— Amongst moss, &c. 10. *Schæff.* 70. *Bull.* 535. 1.

200. A. Gills brown, broad, 4 in a set, pileus rich nut-brown, hemispherical (d. 1 to $1\frac{1}{2}$), stalk rich brown, crooked. BULL. *xyloph'ilus.*

— Alder stumps. 8. *Bull.* 530. 2. L.M. 2. *Sow.* 167.

201. A. Gills rich dark brown, mottled, 4, or 8 in a set, pileus pale yellow brown, convex, bossed (h. $1\frac{1}{2}$ to 2), stalk pale brown (h. 4 to 6, d. $\frac{3}{10}$ to $\frac{1}{2}$). *chocola'tus.*

—— In clusters amongst grass. 9. ——

202. A. Gills dark cinnamon, 4 in a set, pileus brown yellow, convex, bossed, margin deflected (d. $1\frac{1}{2}$ to 2), stalk brown yellow, splitting (h. 2 to 4, d. $\frac{1}{4}$). A. *croceus.* SCHÆF. *fus'co-fla'vus.*

—— Pastures. 10. *Schæff.* 4.

Var. 2. Pileus regularly convex, stalk short, thin, with a slender hollow.

203. A. Gills red chesnut, 2, or 4 in a set, pileus chesnut, small, flattish, depressed (d. $\frac{1}{2}$ to $\frac{3}{4}$), stalk fox-colour (h. 2 to 4, d. $\frac{1}{4}$). *vulpi'nus.*

—— Amongst moss, in Plantations. 8—10.

204. A. Gills purplish brown, pileus bluish, centre brown (d. 1 to $2\frac{1}{2}$, convex), stalk pale blue (club-shaped at the base, h. 2 to $4\frac{1}{2}$, d. $\frac{1}{4}$ to $\frac{1}{2}$). BATSCH. *ferrugi-nas'cens.*

—— Plantations. 9. *Batsch.* 187.

Hyp'ni. 205. A. Gills cinnamon, 4 in a set, long ones about 15, pileus reddish brown, conical (d. $\frac{1}{8}$ to $\frac{1}{4}$), stalk cylindrical, fox-coloured, shining (h. $\frac{3}{4}$ to $1\frac{1}{2}$, d. not $\frac{1}{16}$). BATSCH.

—— Amongst moss. 10. *Batsch.* 96.

lacinia'tus. 206. A. Gills brown, very broad, margin laciniated, 4 in a set, pileus light brown, hemispherical (d. 1 to 2), stalk white, attenuated downwards (h. $1\frac{1}{2}$ to 2, d. $\frac{1}{6}$).

—— Parks. 10. ——

crena'tus. 207. A. Gills red brown, 8 in a set, the larger broad and serrated, pileus cool brown, sattiny, margin crenate (d. 1 to $1\frac{1}{2}$), stalk pale brown (h. $1\frac{1}{2}$, d. $\frac{1}{8}$ to $\frac{1}{6}$).

—— Plantations. 8. ——

clypea'tus. 208. A. Gills greyish brown, 4, or 8 in a set, pileus pale brown, convex, bossed, viscid (d. 1 to $1\frac{1}{2}$), stalk white, viscid (h. 3 to 6, d. $\frac{1}{8}$). LIN. HUDS. BOLT. Lin. Char. "Stipitate, pileus hemispherical, viscid, acuminate, gills white, stalk long, cylindrical, white."

—— Plantations. 9. *Bolt.* 57.

Var. 2. Gills darker brown, pileus powdery.

fi'mi-pu'tris. 209. A. Gills dark brown to black, 4, or 8 in a set, pileus pale brown, conical, obtuse, apex polished (h. 1 to 2, d. 1 to 2), stalk white (h. 2 to 5, d. $\frac{1}{8}$). BULL.

—— In gardens. 10. *Bull.* 66.

Var. 2. Gills (3 or) 4 in a set, pileus grey to black. (Half the size of the former.) A. *varius.* Bolt. *Pl.* 66. 1.

—— 3. Gills chocolate brown to black, mottled, in pairs, pileus mouse-colour, conical, acute, (h. $\frac{1}{2}$ to 1), stalk mouse-colour, cylindrical, firm (h. 3 to 6, d. $\frac{1}{8}$).

—— 4. Gills grey to blue black, 4, or 8 in a set, pileus conical, pale brown, apex chesnut (h. $\frac{1}{2}$), stalk dark mulberry, cylindrical (h. 3 to 4, d. $\frac{1}{8}$).

— In wet gravel, &c. 10. *Schæf.* 202.

mel'leus. 210. A. Gills pale brown, 4 in a set, pileus pale buff, centre darker, rather conical (d. 2), stalk whitish, crooked (h. 2 or 3, d. $\frac{1}{6}$), curtain fugacious. SCHÆF.

—— Plantations. 8. *Schæff.* 45.

Var 2. Pileus chesnut-colour. A. *castaneus.* Bolt. *Plate* 10.?

Var. 3. Pileus darker coloured, depressed, stalk light buff, crooked (d. $\frac{1}{12}$ to $\frac{1}{6}$.)

211. A. Gills pinky pale brown, 8 in a set, pileus pale brown, convex, bossed (d. 1 to $3\frac{1}{2}$), stalk white, cylindrical, smooth (h. $1\frac{1}{4}$ to 4, d. $\frac{1}{8}$ to $\frac{3}{8}$, no curtain or ring). A. *fistulosus*. Bull. *ma'cer.*

—— Parks. 7—9. *Bull.* 518. f. F.

Var. 2. Gills pinky brown, 4, or 8 in a set, pileus very pale buff, nearly flat (d. 1 to $1\frac{1}{2}$), stalk with a little loose pith in the hollow (h. $3\frac{1}{2}$, d. $\frac{1}{8}$).

— In clusters on rot. wood. 10—4. *Batsch.* 111.

—— 3. Gills 4 in a set, pileus nearly white, hemispherical, transparent, stalk white (h. 2 or 3). A. *membranaceus*. Bolt. *Plate* 11.

212. A. Gills pale brown, 4 in a set, few, pileus rich buff, convex (d. $\frac{3}{4}$), stalk pale buff, cylindrical (containing a white pith, h. 1, d. not $\frac{1}{8}$). A. *pulverulentus*. Schæf. *virida'rius.*

—— Grass plats, &c. 8. *Schæff.* 226.

213. A. Gills deep tawny red, broad about the middle, 4 in a set, pileus rich cinnamon, convex, somewhat bossed (d. $1\frac{1}{2}$ to $3\frac{1}{2}$), stalk yellow (h. 2, d. $\frac{1}{6}$). Lin. Bolt. Lin. Char. "Stipitate, pileus dirty yellow, gills yellow red." *cinnamo'meus.*

—— In woods, &c. 8. *Bolt.* 150.

214. A. Gills red, pileus whitish to brownish buff (obtusely conical, d. $\frac{1}{2}$ to 1), stalk white, changing to purplish brown (h. 2 to $3\frac{1}{2}$, d. $\frac{1}{8}$). *rubigino'sus.*

—— On cow-dung. 10. ——

215. A. Gills rose red, 2, to 4 in a set, connected by cross filaments, pileus rose red, bossed (d. $\frac{1}{2}$ to $1\frac{1}{2}$), stalk pale rose (h. 2 to 4, d. $\frac{1}{8}$ to $\frac{3}{8}$). Bull. A. *incarnatus*. Relhan. *ro'seus.*

—— Plantations. 11. *Bull.* 162.

Var. 2. Gills fleshy, pileus brown buff, inclining to rose, boss darker, smooth, sides furrowed, stalk pale rose, or yellowish, white at the top. A. *rubellus*. Schæf. *Tab.* 303,

—— 3. Gills pale pink, changing to grey, stalk flattened, silvery white, root long, fusiform, brown, woody.

216. A. Gills pale red, mostly 4 in a set, pileus brick red (conical, d. 1 to 2), stalk brown red (d. $\frac{1}{6}$), root a knob. *rubicun'dus.*

—— Plantations, &c. 9.

æruginō'sus. 217. A. Gills lilac, 4, or 8 in a set, pileus blue, changing to brown yellow, convex, bossed (d. 1 to 3), stalk bluish (h. $1\frac{1}{2}$ to $2\frac{1}{2}$). CURTIS. A. *cyaneus.* Bolt.

—— Woods. 9. 10. *Curt.* *Bolt.* 143.

Var. 2. Gills 4 in a set, pileus pale blue, acute, stalk entirely white.

—— 3. Gills regularly 4 in a set, without cross threads, pileus conical, stalk white.

fis'sus. 218. A. Gills pale red, broad, 4 in a set, pileus convex, scurfy (d. $1\frac{1}{2}$ to $2\frac{1}{2}$), stalk striated (h. 4 or 5, d. $\frac{1}{6}$).

—— Woods. 9. ——

Var. 2. Pileus dusky olive, conical, brown at the top, stalk grey (splitting through its whole length, h. 4 or 5, d. $\frac{1}{6}$). *Bolt.* 35.

liv'ido-purpu'reus. 219. A. Gills purple, few, brittle (3 or) 4 in a set, pileus purple, convex (d. $1\frac{1}{2}$ to $2\frac{1}{2}$), stalk purple, cylindrical, brittle (h. 2 to 3, d. $\frac{1}{4}$). A. *amethystinus.* Bolt.

—— Moist rocky woods. 8—11. *Bolt.* 63.

Obs. Bolton considers his A. *farinaceus* as no more than a var. of this, as he can find no character of distinction except colour.

Var. 2. Gills flesh-colour, convex, distant, 3 in a set, pileus brownish flesh-colour, convex, becoming concave, margin slightly undulated (d. $1\frac{1}{2}$ to 2), stalk thicker at the base, of the same colour as the pileus. A. *farinaceus.* Bolt.

—— In woods near Halifax. 9. *Bolt.* 64.

Obs. The gills and stalk are covered with a mealy powder of a pale greyish flesh-colour.—I have been favoured by Mr. Bolton with a sight of a drawing taken from larger and more perfect plants, the gills of which are fixed in the convex, and loose in the concave state.

fœ'tidus. 220. A. Gills yellow, narrow, in pairs, pileus brown, striated, convex, depressed, d. $\frac{1}{4}$ to $\frac{3}{4}$, stalk darker brown, cylindrical, hairy, h. 1, d. about $\frac{1}{12}$. Mer. *fœtidus*, Relh. With.

—— In Maddingly wood. RELH. 8. *Sow.* 21.

auran'tius. 221. A. Gills yellow, fleshy, 8 in a set, pileus conical, orange, margin uneven (h. $\frac{3}{4}$ to $1\frac{1}{2}$), stalk yellow, splitting (striated, often twisted, h. 1 to 3, d. $\frac{1}{4}$ to $\frac{1}{2}$). A. *aurantius.* Lightf. With. Bolt. A. *dentatus.* Lin.—Lin. Char. "Stipitate, pi-

leus convex, gills with a tooth-like point at the base."

—— In woods. 6—10. *Curt.* *Bolt.* 67. 2.

Var. 2. Pileus deep crimson, stalk carmine col., gills 4 in a set. *Bull.* 570. 2.

—— 3. Gills few, pale green, margin whitish, 4 in a set, but irregular, pileus green, changing to yellow brown, convex, bossed, irregular (d. 1 to 1 $\frac{1}{4}$) stalk green above, yellow below (h. 1 $\frac{1}{2}$, d. $\frac{1}{8}$).

—— 4. Gills loose, pinky, fleshy, 4 in a set, pileus pale pink (conical, h. 1), stalk pinky (h. 1 to 2, d. $\frac{1}{4}$).

—— 5. Gills loose, yellow, 2, 3, or 4 in a set, pileus and stalk pinky.

Obs. This species is the strongest objection to Dr. Withering's mode of arranging this genus, but the Doctor observes that the gills are in all fixed to the stalk, although in some of the var. only by a filiform process, which breaks as the pileus expands.—To facilitate the investigation of the var. they are also introduced where they are most likely to be sought for. See With. Vol. iv. p. 263.

222. A. Gills pale yellow, in pairs, pileus deep yellow, hemispherical, smooth (d. $\frac{3}{4}$), stalk deep yellow, cylindrical (h. 1, d. $\frac{1}{3}$). WULFEN. Dicks. i. 16. *cera'ceus.*

— Dry pastures. 9. *Sow.* 20. *Jacq. misc.* ii. 15. 2.

223. A. Gills bright yellow, 4 in a set, pileus fine rich buff, margin fine green (obtusely conical, d. $\frac{3}{4}$), stalk green (splitting, h. 1, d. $\frac{1}{8}$). SCHÆF. *psittaci'nus.*

—— Plantations. 8. 9. *Schæf.* 301.

Var. 2. Pileus ruby red, centre yellowish, stalk ruby red, yellowish at the base. A. *dentatus.* Huds. Relh. *Schæf.* 302.

224. A. Gills pale yellow, 4, or 3 in a set, pileus pale yellow, convex, smooth (d. $\frac{1}{4}$ to $\frac{1}{2}$), stalk yellow, slender, smooth (h. $\frac{1}{2}$ to 1 $\frac{1}{4}$, d. $\frac{1}{8}$). *crypta'rum.*

In a wine vault. 9.

Var. 2. Gills pale yellow, (3 or) 4 in a set, pileus pale yellow, conical, smooth (d. scarcely $\frac{1}{2}$), stalk dusky white (h. 1, d. $\frac{1}{8}$). A. *aquosus.* Bolt. not Huds.

—— On rotten wood. 4. *Bolt.* 71. 1.

225. A. Gills pure yellow, pileus yellow, nearly flat, *fla'vicans.*

with an orange boss (d. 1), stalk yellow (splitting, h. 1 to 1½, d. ⅛).

—— Parks. Autumn. ——

impu'ber. 226. A. Gills buff, 4 in a set, pileus reddish brown, conical, becoming flattish and bossed, margin yellowish (d. 1 to 2), stalk whitish or purple, cylindrical (h. 2 to 4, d. ⅜). BATSCH.

—— 10. 11. *Batsch.* 29. 116. a. b. c. *Sow.* 125.

prolif'e rus. 227. A. Gills buff, 4 in a set, pileus buff, obtusely conical, becoming flat, and tearing (h. ½ to 1, d. the same), stalk whitish, with many small plants growing upon its base (h. 2 to 4, d. ⅛ to ¼), root fusiform. SOWERBY.

—— Amongst gravelly sand. — *Sow.* 169.

subcar'neus. 228. A. Gills buff, broad, 4 in a set, pileus convex, buff, darker in the centre, viscid (d. ½), stalk buff, polished (nearly filled with pith, h. about 1, d. not ⅛). BATSCH. A. *campanulatus.* Schæf.

—— On rotten wood. 11. *Batsch.* 100. *Schæf.* 63.

stario'sus. 229. A. Gills deep buff, 4 in a set, pileus convex, buff, (d. ½ to 1½), stalk whitish above, dark brown and scaly below (h. 1½ to 2, d. ⅛), ring permanent, pale brown.

—— Plantations. 10. ——

Var. 2. Gills uneven at the margin, pileus yellow brown, campanulate, obtuse, stalk pale buff, ring none.

flocco'sus. 230. A. Gills buff, 2, or 4 in a set, pileus convex, bright bay, tufted with dark hair (d. ½ to 2), stalk brown bay, tufted (h. 2, d. ⅛). SCHÆF.

—— Edgbaston. — *Curt. Schæf.* 61. ——

Obs. It very much resembles A. *pilosus*, except that the latter has a solid stalk, and decurrent gills. See page 340.

muri'nus. 231. A. Gills greenish, in pairs, pileus brown, nearly hemispherical, centre lighter, umbilicate (d. ½ to 1), stalk crooked, cylindrical (h. 1 to 1½, d. ½ to ⅛, smell mousish).

—— Found by Lady ARDEN. 9. *Sow.* 162.

fasciculu'ris. 232. A. Gills brown green, 4 in a set, pileus yellow and orange (somewhat conical, d. 1½ to 2), stalk yellow (crooked, h. 2 to 4, d. ⅛). HUDS. BOLT. A. *lateritius.* Schæf.

— On rotten wood. 6—4. *Bolt.* 29. *Schæf.* 49. 1. 2. 3.

Var. 2. Gills yellow to greenish, 8 in a set, regular, stalk with a ring. A. *spadiceus.* Batsch. *Tab.* 29.

Var. 3. Gills watery white changing to grey green (adhering to the stalk by a narrow claw), pileus irregularly convex, bossed (d. 2 to 3), A. *pomposus*. Bolt. *Plate* 5.

—— 4. Gills dirty pale green, covered with a purplish brown powder, margin undulated.

233. A. Gills few, pale green, whitish at the margin, 4 in a set, but irregular, pileus green, changing to yellow brown, convex, bossed, irregular, stalk green above, yellow below. A. *aurantius* var. 3. See page 369. *auran'tius.*

234. A. Gills grey, changing to dark chocolate, pileus bright red orange, widely conical (bossed, d. 1 to 3), stalk light brown (striated, h. $2\frac{1}{2}$ to $3\frac{1}{2}$, d. $\frac{1}{6}$). *car'neo-fla'vus.*

—— Parks. ——

235. A. Gills grey, 4, or 8 in a set, pileus brownish grey, obtusely conical (d. 1 to $1\frac{1}{2}$), stalk whitish brown, cylindrical (h. 3 to 4, d. $\frac{1}{8}$, ring white). *corona'tus.*

—— Edgbaston grove, rare. 4. ——

Var. 2. Gills grey, margin white, 8 in a set, pileus hemispherical, mealy, white, stalk mealy, white.

236. A. Gills grey, mottled, 4, or 8 in a set, margin horizontal, pileus greenish yellow, hemispherical (d. $\frac{3}{4}$), stalk pale buff (h. 2 to 3, d. $\frac{1}{8}$). BATSCH. *semigloba'tus.*

—— In pastures, &c. 7—10. *Curt. Batsch.* 110.

Var. 2. Stalk livid.

—— 3. Gills brown grey, 4 in a set, long ones 16 to 18, pileus pale buff, smooth, viscid, hemispherical, acuminate, stalk white, viscid. *Batsch.* 5. *Schæf.* 236.

237. A. Gills livid blue grey, 3 in a set, pileus cushion-shaped, silky, indigo black (d. $\frac{1}{2}$ to 1), stalk indigo (h. $1\frac{1}{2}$ to 2, d. nearly $\frac{1}{6}$). *ni'gricans.*

—— Near Burk's Hall. 9. *Bolt. dr.*

Descr. The *Root* a hard brown knot with a few fibres. *Stalk* tubular, of an indigo colour without, blue grey within. *Gills* adhering to the stalk at first, afterwards loose, of a livid blue grey colour, 3 in a set. *Pileus* somewhat campanulate, of an indigo black, soft and silky to the eye and touch. BOLT. MSS.

6. *Stalks central, tubular, gills loose.*

238. A. Gills white, uniform, fixed to a collar surrounding the stalk, pileus white, scariose, de- *rot'ula.*

pressed (d. $\frac{1}{8}$ to $\frac{1}{4}$), stalk white above, black below (h. 1 to 3, d. not $\frac{1}{16}$). Scop. Sow. A. *androsaceus*. Huds. Lightf. &c. not Lin. Merulius *collariatus*. With.

—— On sticks and leaves. 8. *Sow.* 95. *Bolt.* 32.

pro'cerus. 239. A. Gills white, uniform, fixed to a collar, pileus widely conical, bossed, white brown, scaly (d. 3 to 7), stalk scaly (pithy within, h. 6 to 8, d. $\frac{1}{2}$), ring loose. Scop. Huds. &c.

—— In dry pastures. 9. *Curtis.*

Var. 2. Gills white, fixed to a collar, 2, or 4 in a set, irregular, pileus conical, bossed, smooth, pale brown, stalk whitish brown, smooth above.

—— 3. Gills white, fixed to a collar, in pairs, irregular, pileus conical, bossed, tufted, pale brown, stalk smooth, white. A. *annulatus*. Bolt. *Plate* 23.

—— 4. Gills white, fixed to a collar, 2, or 4 in a set, pileus convex, rather bossed, brown upon a white ground, stalk white, smooth, attenuated upwards, ring loose. A. *excoriatus*. Schæff. *Tab.* 18. 19.

orbicula'ris. 240. A. Gills white, 3 in a set, pileus circular, flat, brown gold colour (d. 1 to 2), stalk cylindrical, of the same colour as the pileus (h. 1 to 2, d. $\frac{1}{6}$).

—— In the shrogs near Halifax. 9. *Bolt. dr.*

Descr. The *Root* round, hard, and sending off brown fibres. *Stalk* cylindrical, erect, and of a brown gold-colour, tubular, and destitute of a curtain. *Gills* white, thin, delicate, 3 in a set, broad at the base, where they are rounded off close to the top of the stalk, but are not fixed to it. *Pileus* perfectly circular, whilst young elevated in the centre, when at maturity quite flat and even, of a brown gold-colour, darkest in the centre. In size and figure somewhat like A. *Cinnamomeus*, but totally distinct in texture, smell, and taste, both from that and A. *Oreadus*. Bolt. MSS.

saccharo'tus. 241. A. Gills white, mostly uniform, narrow, pileus brown, flat (surface sprinkled with remnants of the white wrapper, d. 2), stalk white, cylindrical (h. 3, d. $\frac{1}{6}$).

—— Parks.

extincto'rius. 242. A. Gills white, numerous, uniform, pileus white, obtusely conical (like an extinguisher, becoming pale brown, h. 1 to $1\frac{1}{2}$), stalk white (h. 3 to 5, d. $\frac{3}{10}$). Lin. Bull. Bolt. Lin. Char. "Stipitate, pileus campanulate, white, lacerated,

gills snowy, stalk somewhat bulbous, subulate, naked."

—— Amongst sand in moist places. — *Bolt.* 24.

243. A. Gills white, pileus very thin, white or brownish, flat, bossed, margin rolling up (d. $\frac{3}{4}$ to $2\frac{1}{2}$), stalk white, thicker below (h. 4, d. $\frac{1}{8}$ to $\frac{1}{6}$, whole plant very tender.) Bull. *stercora'rius.*

—— On dung in pastures. Autumn. *Bull.* 542.

Var. 2. Pileus light grey brown, stalk thickest above the base, attenuated upwards and downwards.

—— 3. Pileus conical to campanulate, pellucid, watery white, top brownish mouse-colour, stalk white, pellucid, tall, thin. A. *tenuis.* Bolt. *Plate* 37.

Obs. In dry weather the margin of the pileus rolls inwards very much.

—— 4. Pileus brown or bluish grey, summit nearly black, stalk grey.

244. A. Gills white, numerous, 4 in a set, pileus convex, bossed, pale brown, mottled, stalk smooth. *clypeola'rius.*

Var. 1. Stalk brownish (h. 2 to 3, d. $\frac{1}{4}$), ring brownish (pileus $1\frac{1}{4}$ to 2 inch. in diam.).

—— In woods, &c. in moist seasons. 11. *Sow.* 14.

—— 2. Stalk quite white, ring white, delicate, *Bull.* 596. 2. L.

—— 3. Stalk without a ring, pileus beautifully mottled with little tufts of a brown red col. A. *cristatus.* Bolt.

— In gardens, &c. 8. 9. *Bolt.* 7.

—— 4. Gills white, crowded, 4, or 8 in a set, pileus convex, dirty white, with reddish blotches, centre reddish, stalk dirty white, blotched, ring none. *Curt.* 315.

345. A. Gills white, irregular, pileus dark brown at top, paler at the margin (d. $2\frac{1}{2}$), stalk almost black (h. 4 to 6), root crooked, knotted. Jacq. *allia'ceus.*

—— On rotten wood, &c. 9. *Jacq. fl.* 81.

246. A. Gills white, 4 in a set, pileus buff, convex, semi-transparent (d. 1 to $2\frac{1}{2}$), stalk buffy white (h. 1 to 2, d. $\frac{1}{8}$). *ochra'ceus.*

—— Parks. 9. *Schæf.* 265.

Var. 2. Gills 8 in a set, pileus red brown, darker at the margin, stalk white.

Var. 3. Gills yellowish watery white, 8 in a set, pileus rich red brown, pale at the margin, cracking, stalk as dark or darker than the pileus, splitting.

—— 4. Gills 8 in a set, often forked, pileus brown buff, stalk red chesnut.

dis'par. 247. A. Gills yellow white, 4 in a set, pileus yellow white, convex (margin turned in, d. $1\frac{1}{2}$), stalk deep red brown, yellow within (h. $2\frac{1}{2}$, d. nearly $\frac{1}{6}$). BATSCH.

—— Parks. —— *Batsch.* 210.

fus'co-al'bus. 248. A. Gills brownish white, broad, regularly 4 in a set, pileus hemispherical, brown, smooth ($\frac{3}{4}$ to 1), stalk brown (h. $\frac{1}{2}$, d. $\frac{1}{8}$).

—— Amongst short grass. 8. ——

piluli-for'mis. 249. A. Gills white, in pairs, pileus brown, globular (d. $\frac{1}{8}$ to $\frac{1}{4}$), stalk white (h. $\frac{1}{4}$ to 1, d. $\frac{1}{12}$). BULL.

—— At the foot of trees, &c. —— *Bull.* 112.

turbina'-tus. 250. A. Gills yellowish white, in pairs, pileus yellow brown, cylindrical, striated, stalk white (h. 1, d. $\frac{1}{6}$). RAY. A. *lignorum.* Schæf.

— In clusters on stumps of trees. 11. *Schæf.* 66.

Var. 2. Gills quite white, much smaller than the former, growing on the ground. A. *fuliginosus.* Huds. Ray syn. 10. 53.

—— 3. Gills white, brown when old (3 or) 4 in a set, pileus rich olive (conical, margin revolute, h. $1\frac{1}{2}$), stalk brown (h. 2 to $3\frac{1}{2}$, d. $\frac{1}{8}$ to $\frac{1}{6}$). A. *pseudo-clypeatus.* Bolt.

— On stumps of trees. 10. *Bolt.* 154.

—— 4. Gills brownish white, changing to reddish brown, uniform, pileus striated (cylindrical, h. $\frac{1}{4}$), light brown, yellowish and smooth at the top (h. $1\frac{1}{2}$, d. $\frac{1}{8}$).

congre-ga'tus. 251. A. Gills white, with grey margins, 2, or 4 in a set, pileus conical, brown buff, sides furrowed (d. $1\frac{1}{2}$ to 2), stalk white, smooth (h. 2 to 3, d. $\frac{1}{4}$). BULL. A. *striatus.* Bolt. *the small figures.*

—— In clusters on the ground. 8—10. *Bolt.* 54.

Var. 2. Gills white, with black margins, wholly black when older, 4 in a set, pileus (oblong becoming conical, h. $1\frac{1}{4}$), tomentous, grey, stalk tomentous, grey, h. $2\frac{1}{2}$). A. *tomentosus.* Bolt.

—— On peat bogs. —— *Bolt.* 156.

252. A. Gills white, changing to grey black, pileus pale yellow brown, spangled, conical (h. $1\frac{1}{4}$), stalk white (cylindrical, h. 3 or 4, d. $\frac{1}{6}$). Bull. A. *fuscescens*. Schæf. *micaceus*.

—— Moist meadows. 10. *Bull.* 246. *Schæf.* 17.

253. A. Gills brown white, pileus brown white, obtusely conical, striated (d. $\frac{1}{2}$ to 1), stalk yellow (cylindrical, tender, h. $2\frac{1}{2}$, d. $\frac{1}{8}$). A. *plicatilis*. Schæf. *Tab.* 31. *fla'vipes*.

—— Headington Wick close, Oxf. Sibth. 10.

254. A. Gills white, (3 or) 4 in a set, pileus yellow, conical, striated (h. $\frac{1}{4}$), stalk pale yellow (h. 1, setaceous). Bolt. A. *pumilus*. Bull. *lu'teo-al'bus*.

—— In woods. — *Bull.* 260. *Bolt*, 38. 1.

Var. 2. Gills yellow white, pileus dark green, stalk green.

255. A. Gills red chesnut, pileus a tall slender cone, white (h, near 1, d. about $\frac{1}{4}$, apex rounded) stalk white, (cylindrical, h. 2, d. $\frac{1}{8}$). *co'lus*.

—— On grass plats, &c. 8. *Sow.* 33. *upper fig.*

Var. 2. Pileus buffy white, spreading at the margin, conical, (h $\frac{3}{4}$, d. $\frac{1}{2}$), stalk bulbous at the base. A. *conocephalus*. Bull. A. *tener*, Sow.

—— Pastures. 8. *Sow.* 33.

256. A. Gills reddish brown, few, 4 in a set, pileus dark brown, convex, centre conical (h. $\frac{1}{4}$ to $\frac{1}{2}$), stalk brown, cylindrical, elastic (h. $1\frac{1}{4}$ to $1\frac{3}{4}$, d. not $\frac{1}{8}$, root bulbous). Bolt. *a'tro-ru'fus*.

—— Amongst moss. 4—8. *Schæf.* 234. *Bolt.* 51. 1.

Var. 2. Pileus deep yellow at the margin.

257. A. Gills pale brown, broad, thin (margin undulated, 3 or) 4 in a set, pileus red brown, margin lobed, turned inwards (nearly globular, d. $\frac{1}{2}$ to $\frac{7}{8}$), stalk pale dead white (h. 4, d. $\frac{1}{8}$). Bolt. A. *foraminulosus*. Bull. *nu'ceus*.

—— In fir plantations. 10. *Bolt.* 70. *Bull.* 535. 1.

258. A. Gills pale brown, 4 in a set, pileus brown, convex, crumpled (d. $1\frac{1}{2}$), stalk white, crooked, attenuated upwards (several united at the base). Stackh. *corruga'tus*,

—— Packington Park. Autumn.

259. A. Gills pinky brown, pileus brown pink, conical (d. nearly $1\frac{1}{2}$), stalk brown pink (h. 4, d. $\frac{3}{8}$). *rubia'tus*.

—— Parks. Autumn.

Var. 3. Gills yellowish watery white, 8 in a set, pileus rich red brown, pale at the margin, cracking, stalk as dark or darker than the pileus, splitting.

—— 4. Gills 8 in a set, often forked, pileus brown buff, stalk red chesnut.

dis'par. 247. A. Gills yellow white, 4 in a set, pileus yellow white, convex (margin turned in, d. $1\frac{1}{2}$), stalk deep red brown, yellow within (h. $2\frac{1}{2}$, d. nearly $\frac{1}{6}$). BATSCH.

—— Parks. —— *Batsch.* 210.

fus'co-al'bus. 248. A. Gills brownish white, broad, regularly 4 in a set, pileus hemispherical, brown, smooth ($\frac{3}{4}$ to 1), stalk brown (h. $\frac{1}{2}$, d. $\frac{1}{8}$).

—— Amongst short grass. 8. ——

piluli-for'mis. 249. A. Gills white, in pairs, pileus brown, globular (d. $\frac{1}{8}$ to $\frac{1}{4}$), stalk white (h. $\frac{1}{4}$ to 1, d. $\frac{1}{12}$). BULL.

—— At the foot of trees, &c. —— *Bull.* 112.

turbina'-tus. 250. A. Gills yellowish white, in pairs, pileus yellow brown, cylindrical, striated, stalk white (h. 1, d. $\frac{1}{6}$). RAY. A. *lignorum.* Schæf.

— In clusters on stumps of trees. 11. *Schæf.* 66.

Var. 2. Gills quite white, much smaller than the former, growing on the ground. A. *fuliginosus.* Huds. Ray syn. 10. 53.

—— 3. Gills white, brown when old (3 or) 4 in a set, pileus rich olive (conical, margin revolute, h. $1\frac{1}{2}$), stalk brown (h. 2 to $3\frac{1}{2}$, d. $\frac{1}{8}$ to $\frac{1}{6}$). A. *pseudo-clypeatus.* Bolt.

— On stumps of trees. 10. *Bolt.* 154.

—— 4. Gills brownish white, changing to reddish brown, uniform, pileus striated (cylindrical, h. $\frac{3}{4}$), light brown, yellowish and smooth at the top (h. $1\frac{1}{2}$, d. $\frac{1}{8}$).

congre-ga'tus. 251. A. Gills white, with grey margins, 2, or 4 in a set, pileus conical, brown buff, sides furrowed (d. $1\frac{1}{2}$ to 2), stalk white, smooth (h. 2 to 3, d. $\frac{1}{4}$). BULL. A. *striatus.* Bolt. *the small figures.*

—— In clusters on the ground. 8—10. *Bolt.* 54.

Var. 2. Gills white, with black margins, wholly black when older, 4 in a set, pileus (oblong becoming conical, h. $1\frac{1}{4}$), tomentous, grey, stalk tomentous, grey, h. $2\frac{1}{2}$). A. *tomentosus.* Bolt.

—— On peat bogs. —— *Bolt.* 156.

252. A. Gills white, changing to grey black, pileus pale yellow brown, spangled, conical (h. $1\frac{1}{4}$), stalk white (cylindrical, h. 3 or 4, d. $\frac{1}{6}$). Bull. A. *fuscescens*. Schæf. *mica'ceus*.

—— Moist meadows. 10. *Bull.* 246. *Schæf.* 17.

253. A. Gills brown white, pileus brown white, obtusely conical, striated (d. $\frac{1}{2}$ to 1), stalk yellow (cylindrical, tender, h. $2\frac{1}{2}$, d. $\frac{1}{8}$). A. *plicatilis*. Schæf. *Tab.* 31. *fla'vipes*.

—— Headington Wick close, Oxf. Sibth. 10.

254. A. Gills white, (3 or) 4 in a set, pileus yellow, conical, striated (h. $\frac{1}{4}$), stalk pale yellow (h. 1, setaceous). Bolt. A. *pumilus*. Bull. *lu'teo-al'bus*.

—— In woods. — *Bull.* 260. *Bolt.* 38. 1.

Var. 2. Gills yellow white, pileus dark green, stalk green.

255. A. Gills red chesnut, pileus a tall slender cone, white (h. near 1, d. about $\frac{1}{4}$, apex rounded) stalk white, (cylindrical, h. 3, d. $\frac{1}{8}$). *co'lus*.

—— On grass plats, &c. 8. *Sow.* 33. *upper fig.*

Var. 2. Pileus buffy white, spreading at the margin, conical, (h $\frac{3}{4}$, d. $\frac{1}{2}$), stalk bulbous at the base. A. *conocephalus*. Bull. A. *tener*. Sow.

—— Pastures. 8. *Sow.* 33.

256. A. Gills reddish brown, few, 4 in a set, pileus dark brown, convex, centre conical (h. $\frac{1}{4}$ to $\frac{1}{2}$), stalk brown, cylindrical, elastic (h. $1\frac{1}{4}$ to $1\frac{3}{4}$, d. not $\frac{1}{8}$, root bulbous). Bolt. *a'tro-ru'fus*.

—— Amongst moss. 4—8. *Schæf.* 234. *Bolt.* 51. 1.

Var. 2. Pileus deep yellow at the margin.

257. A. Gills pale brown, broad, thin (margin undulated, 3 or) 4 in a set, pileus red brown, margin lobed, turned inwards (nearly globular, d. $\frac{1}{2}$ to $\frac{7}{8}$), stalk pale dead white (h. 4, d. $\frac{1}{8}$). Bolt. A. *foraminulosus*. Bull. *nu'ceus*.

—— In fir plantations. 10. *Bolt.* 70. *Bull.* 535. 1.

258. A. Gills pale brown, 4 in a set, pileus brown, convex, crumpled (d. $1\frac{1}{2}$), stalk white, crooked, attenuated upwards (several united at the base). Stackh. *corruga'tus*,

—— Packington Park. Autumn.

259. A. Gills pinky brown, pileus brown pink, conical (d. nearly $1\frac{1}{2}$), stalk brown pink (h. 4, d. $\frac{3}{8}$). *rubia'tus*.

—— Parks. Autumn.

cuspida'tus. 260. A. Gills dusky brown, (3 or) 4 in a set, pileus cinnamon colour, conical (h. nearly 1), stalk brownish, cylindrical, smooth (h. 4 or 5, d. about $\frac{1}{8}$). Bolt.

—— Where wood, &c. has been burnt. *Bolt.* 66. 2.

Obs. This is referred by Sowerby to A. *tener.* See A. *colus.*

xy'lopes. 261. A. Gills brown, numerous, 4 in a set, claws white, pileus buff, flattish (d. 1 to 2), stalk long (brownish white, h. 4 or 5, d. $\frac{1}{6}$ to $\frac{1}{8}$, ring thin, ragged, brown white).

—— Fir plantations. 6. ——

contin'gens. 262. A. Gills cool brown, pileus pale yellowish brown, widely conical, apex orange brown (d. 3), stalk white, silky, cracking (h. 3 to 4, d. $\frac{1}{4}$).

—— Packington Park. Autumn. ——

muta'bilis. 263. A. Gills tawny, 4 in a set, pileus brown orange, convex, bossed (form varying, d. 1 to $1\frac{1}{2}$), stalk red brown below, scurfy, white above the (permanent) ring. Schæf.

—— On decaying wood. 8. *Schæf.* 9. *lower fig.*

tit'ubans. 264. A. Gills red brown, in pairs, pileus yellow, conical, spreading (h. 1), stalk yellow (h. $2\frac{1}{2}$ to 3, d. $\frac{1}{8}$). Bull.

—— In parks. Autumn. *Sow.* 128.

volva'ceus. 265. A. Gills red brown, pileus greenish grey, nearly flat when fully expanded (and cracking, h. 4 to 5), stalk whitish (solid, h. 3 to 5, d. $\frac{1}{2}$ or more, wrapper at the root, grey or greenish). Bull.

— On stumps of trees, & in bark beds. 8. *Sow.* 1.

Obs. A. *trilobus* of Bolton is referred to this plant by Sowerby, by Withering to A. *badius.* It seems surprising that A. *volvaceus* should be placed here by With., since in the description the stalk is said to be solid. See A. *badius.* P. 357.

auran'tius. 266. A, Gills pinky, fleshy, 4 in a set, pileus and stalk pinky. A. *aurantius.* Var. 4. See page 369.

cylin'dricus. 267. A, Gills pinky, uniform, pileus white, cylindrical, scaly (h. 4, d. $1\frac{1}{2}$ to 2), stalk cylindrical, white (h. 4 to 8, d. $\frac{1}{4}$, ring loose, permanent). A. *fimetarius.* Curt. Bolt. A. *comatus.* F. Dan.

—— In pastures. 5—9. *Curt. Bolt.* 44.

Var. 2. Gills fine red, pileus white, tomentous, soon changing to red (striated, h. $1\frac{1}{2}$, stalk h. 3, d. $\frac{1}{4}$), ring permanent (near the bottom of the stalk). A. *oblectus.* Bolt.

—— On new dunghills. 7. *Bolt.* 142.

Var. 3. Gills pinky, uniform, pileus light brown, mottled, conical (h. $1\frac{1}{4}$, stalk white, h. 3, or 4, d. $\frac{1}{6}$). A. *domesticus*. Bolt.

——. On ground floors, &c. in clusters. *Bolt*. 26.

Obs. The wrapper of this species is quite peculiar, as it includes the pileus without the root. See Bolton.

268. A. Gills brown red to chocolate, 4 in a set, pileus pale buff, conical (d. $1\frac{1}{2}$), stalk white (h. $1\frac{1}{2}$ to 2, d. $\frac{1}{8}$). — Bull. A. *spadiceo griseus*. Schæf. *appendiculatus*.

—— Orchards. 8. 1. *Bull*. 392. B. *Schæff*. 237.

269. A. Gills dull red, broad, numerous, 2, or 4 in a set, pileus dirty brown, conical, woolly (h. $1\frac{1}{2}$), stalk dirty white (h. 2 to 3, d. $\frac{2}{8}$ to $\frac{3}{8}$). Bull. *lachrymabundus*.

—— In woods and pastures. — *Bull*. 525, 3.

270. A. Gills pale flesh-colour, mostly in pairs, pileus convex, brown, centre reticulated (d. $\frac{1}{2}$ to $\frac{3}{4}$), stalk watery white (striated, h. 1, d. not $\frac{1}{8}$). *reticulatus*.

—— Scarce, Edgbaston Pool Dam. 8. *Sow*. 144?

Obs. Sowerby's fig. are much larger than the plants described by Withering.

271. A. Gills buff, few, narrow, 4 in a set, pileus buff, conical, margin thin, involute (h. $1\frac{1}{2}$), stalk buff (h. 4, d. $\frac{1}{6}$). Batsch. *marginatus*.

—— Parks, &c. —— *Batsch*. 207.

272. A. Gills pale brown buff, broad, few, 4 in a set, pileus dead whitish colour, nearly flat (d. 4 or 5), stalk white (or brownish), tapering gently upwards (h. 5, d. $\frac{1}{2}$). Bull. Sow. A. *repandus*. Bolt. *dryophyllus*.

—— Shady woods. 8. 9. *Sow*. 127. *Bolt*. 6.

Var. 2. Gills pale brown buff, numerous, irregular, pileus dark brown, flat, velvety, stalk pale brown, short (juice milky mild).

— Coplar wood. Stackh. 9. *Bull*. 434. D.

—— 3. Gills nearly white, pileus reddish buff, stalk reddish. Bull. 434. *upper fig*.

273. A. Gills pale buff, 4 in a set, pileus convex, pale buff, darker in the centre (d. $\frac{1}{2}$), stalk light buff (h. $1\frac{1}{2}$, d. not $\frac{1}{8}$), root a knob. *nodosus*.

—— Parks. Autumn. ——

ardosia'ceus. 274. A. Gills brown buff, pileus blue, convex (depressed, becoming inverted, d. $2\frac{1}{2}$ to 3), stalk blue (h. 4, d. $\frac{1}{6}$). Bull.
—— In pastures. Sibth. & *Bull.* 348.

fla'vus. 275. A. Gills pale yellow, 2, (3) or 4 in a set, pileus pale yellow, conical, dry, thin, tearing (d. 3 to 4), stalk compressed, twisting (furrowed, h. 4, d. $\frac{1}{2}$). A. *laceratus.* Bolt. 283.
—— Dry pastures, &c. — *Bolt.* 68.

eques'tris. 276. A. Gills sulphur yellow, 4 in a set, pileus pale yellow, convex (d. 1 to 2, centre darker, cylindrico-conical when young), stalk white or dusky yellow, cylindrical (h. 2 to 4, d. $\frac{1}{8}$). Lin. Bolt. Lin. Char. "Stipitate, pileus pale, disk yellow, gills sulphur-colour."
—— Pastures, &c. 8. *Bolt.* 65.
Var. 2. Broader and shorter, curtain fugacious. A. *flavidus.* Bolt. 284.
—— On dunghills, after rain, &c. 6. 7. *Bolt.* 149.

velu'tipes. 277. A. Gills pale yellow, 8 in a set, pileus brown orange, nearly flat (d. 1 to 3), stalk yellow above, velvety and dark brown below (h. 2 to 4, d. $\frac{2}{8}$ to $\frac{3}{8}$). Curtis. A. *nigripes.* Bull.
—— On rotten wood. 10. 4. *Curt.* 40. *Bull.* 344.

cruenta'tus. 278. A. Gills pale yellow, pileus yellow brown with red streaks (rather bossed, d. $2\frac{1}{2}$), stalk light brown, striated (h. $2\frac{1}{2}$, d. nearly $\frac{1}{2}$).
—— Parks. Autumn.

auran'tius. 279. A. Gills loose, yellow, 2, 3, or 4 in a set, pileus and stalk pinky. A. *aurantius.* Var. 5. See page 368.

ova'tus. 280. A. Gills silvery grey, uniform (connected by filaments), pileus grey brown, plaited (ovate to campanulate, d. 3 to 4), stalk white (thicker downwards, h. 3 to 4, d. $\frac{1}{4}$ to $\frac{3}{8}$). Scop. A. *striatus.* Huds. 285
—— Hedge-banks, &c. 10. *Curt.* 101.

conspersus. 281. A. Gills grey, uniform, pileus conical, watery white, with beautifully white flakes (thin as tissue paper, revolute, h. $1\frac{1}{2}$), stalk white (tapering upwards, h. 5, d. $\frac{1}{8}$ or more). A. *stercorarius.* Bull.
— On dunghills & in poultry yards. 6. *Bull.* 542. 2.

pica'ceus. 282. A. Gills dark grey, 3 in a set, pileus grey, with whitish flakes, ovate when young, becoming

conical and flattish, the margin revolute (h. 2 or more, d. the same), stalk greyish, attenuated upwards (h. 6 to 7, d. $\frac{3}{8}$). BULL. SOW.

—— In woods, &c. 10. 11. *Sow.* 170. ——

Obs. It is very nearly allied to A. *conspersus* of With. Sow.

283. A. Gills grey, uniform, pileus grey, streaked, centre brown orange (conical, soon becoming flat, margin crenate, revolute, d. 1 to $1\frac{1}{2}$), stalk white (h. 2 to 4, d. $\frac{1}{8}$ to $\frac{1}{6}$). BULL. A. *radiatus.* Bolt. *momenta'neus.*

— In pastures. 10—4. *F. Dan.* 832. 2. *Bolt.* 39. C.

Var. 2. Gills grey, uniform, pileus tawny brown, strongly streaked (conical, margin involute, crenate, h. $2\frac{1}{2}$), stalk white (h. 5 or 6, d. $\frac{1}{4}$). A. *striatus.* Bolt. *Plate* 54. *larger fig.*

284. A. Gills grey, uniform, not reaching the stalk, pileus watery grey, streaked, centre brown (conical, d. $1\frac{1}{2}$ to $2\frac{1}{2}$), stalk white, tapering upwards (and downwards from about 2 inches above the base, h. 6 to 8, d. $\frac{1}{8}$ to $\frac{3}{8}$). SCHÆFF. A. *fimetarius.* Huds. A. *pullatus.* Bolt. *ciner'eus.*

—— On dunghills, or in rich mead. 6. *Bolt.* 20.

Var. 2. Gills 4 in a set, pileus semi-transparent, stalk in appearance horny. A. *cinereus.* Bull. *Tab.* 88.

—— 3. Gills grey, in pairs, extremely narrow, not reaching the stem, pileus grey, conical, plaited, buff in the centre, patched with white pieces of the wrapper, stalk white, tapering upwards, tomentous.

285. A. Gills pale grey, uniform, pileus mouse grey, obtusely conical (h. $\frac{3}{4}$), stalk grey, smooth (h. 2, d. not $\frac{1}{12}$). LIN.—Char. "Stipitate, pileus campanulate, striated, pellucid, gills ascending, stalk naked." *campanula'tus.*

— In pastures, &c. 9. 10. *Vail.* xii. 1. 2.

—— 2. Gills whitish grey, turning black, uniform, pileus yellow brown, campanulate, obtuse (h. $\frac{1}{2}$), stalk greyish (h. 1 to $1\frac{1}{2}$, d. $\frac{1}{8}$). A. *aquosus.* Huds. A. *truncorum.* Schæf.

— On rot. wood. 8—10. *Schæff.* 6. *Ger.* 1580. 2.

286. A. Gills brown grey to black, 2, or 4 in a set, (not extending to the margin of the pileus), pileus light brown, smooth, semi-ovate (mar- *semi-ova'tus.*

gin ciliate, h. 1½, d. 1½), stalk cylindrical, white (sometimes pithy within, h. 5, d. ⅛). A. *ciliaris.* Bolt.

—— Cow-pastures, &c. 6—9. *Bolt.* 53.

Var. 2. Gills grey, mottled, 2, or 4 in a set, pileus pale brown, smooth, of the figure and size of half of a hen's egg, stalk brownish, cylindrical (h. 2 to 3, d. ⅛). A. *papilionaceus.* Bull. *Tab.* 58.

plica'tilis. 287. A. Gills grey, in pairs, pileus ash-colour, centre brown yellow (conical, plaited, d. ½ to 1), stalk white (cylindrical, h. 2 to 3, d. ⅛). Curt. A. *ephemerus.* Bull. A. *virgineus.* Batsch.

—— Grass plats, &c. 4—10. *Bull.* 542. f. 1. *Curt.*

Obs. It is distinguished from A. *momentaneus* by the gills being in pairs, and their approach to the stalk being limited by a fleshy circle in the centre of the pileus on the under side.

exara'tus. 288. A. Gills dirty grey, changing to black, in pairs, pileus plaited, striated (brown and lead colour, conical, afterwards spreading, d. 1½, stalk whitish grey, h. 5 or 6, d. 1/12). A. *campanulatus.* β. Huds. A. *campanulatus.* Bolt. A. *plicatus.* Bull.

—— In meadows. 9. 10. *Bolt.* 31. *Bull.* 80.

Var. 2. Gills 2, or 4 in a set, pileus regularly plaited, centre smooth, brown. Stackh.

cinc'tulus. 289. A. Gills dark blackish grey, (3 or) 4 in a set, pileus brown bay, with a broad dark brown belt, conical (d. 2 to 3), stalk dirty brown (cylindrical, h. 3, d. ⅛). Bolt.

—— On dunghills, after rain, &c. 6, 7. *Bolt.* 152.

rhomboide'us. 290. A. Gills purplish grey, broad, 4 in a set, pileus widely conical, very dark brown (bossed, margin unequal, d. 1 to 1½), stalk light grey, striated.

—— Parks. Autumn. ——

7. *Stalks lateral* (betulinus).

labyrinthifor'mis. 291. A. Gills white, variously anastomosing, pileus white, semi-circular, tomentous (margin irregularly crenate, 2 to 4 inches over), stalk brown white, knotty (h. 4 or 5, d. nearly ½).

— Amongst moss. *Schæf.* 43 & 44. 9. *like it.*

ses'silis. 292. A. Gills white to yellow brown, the long ones forked, pileus milky white, flat, thin (½ an inch over, stalk or root? a blackish knob. Bull. A. *niveus.* Jacq. Dicks.

—— On rotten sticks. *Bull.* 152. *Bolt.* 72. 2.

lateral, gills white—brown.

293. A. Gills white, irregular, long ones often branched at the base, pileus brown, smooth, thin, wrinkled at the margin (1 to 8 inches broad, 2 to 10 long, oyster-form, stalk or rather root solid, tough). Jacq. *ostrea'tus.*
—— Clefts of trees. 12—1. *Curtis.* ——

Var. 2. Proliferous, on a sort of pedicel, from whence 1, 2, 3, or more mis-shapen lobes proceed, and from these other little lobes.

294. A. Gills white, with globular glands on their sides, pileus dark brown (very large, 18 inch. by 14), stalk very short, white. Bull. *glandulo'sus.*
—— On stumps of trees. 9—12. *Bull.* 426.

295. A. Gills whitish, branched, pileus red brown and grey, semi-circular, convex, scaly, fleshy, margin turned in ($1\frac{1}{2}$ by $2\frac{1}{2}$), stalk whitish (obconical, $\frac{1}{2}$ inch long, d. $\frac{1}{2}$). Schæf. *dimidia'tus.*
—— Solitary, on ash-trees, &c. — *Schæf.* 233.

296. A. Gills rich brown, numerous and irregular, pileus brown, shining, glutinous, margin greatly involute (about 7 inches broad, stalk short, thick, brown). Bull. *concha'tus.*
—— On large trees. 8. *Bull.* 298.

297. A. Gills orange brown, not numerous, irregular, pileus orange brown, nearly circular (3 to 5 inches over), stalk yellow brown, lateral in the large, nearly central in the smaller plants ($1\frac{1}{2}$ to 3 inches long, d. $\frac{1}{2}$). *auran'tio-ferrugin'eus.*
— In clusters at the foot of an oak gate-post. 10.

298. A. Gills red brown, 4 in a set, but irregular, pileus deeper brown red, flat, oblong (membranous, margin deflected, $1\frac{1}{2}$ to 2 inches over), stalk reddish white, eccentric (h. 1, d. $\frac{1}{4}$). Bull. *palma'tus.*
—— On timber. —— *Bull.* 216.

299. A. Gills mouse brown, thin, pliable, (3 or) 4 in a set, pileus mouse brown, flat, with narrow darker concentric lines near the undulated margin. Bolt. *pla'nus.*
—— Grows erect on the ground. 10. *Bolt.* 72. 3.

300. A. Gills yellowish brown, numerous, pileus smooth, mealy, whitish (margin laciniated, 1 to $1\frac{1}{2}$ inch over), stalk brown, variably eccentric ($\frac{1}{4}$ to $\frac{1}{2}$ inch high). A. *semipetiolatus.* Schæf. *flabel'liformis.*
—— Stumps of oaks. Stackh. — *Schæf.* 208.

Var. 2. Pileus buff colour, about $\frac{1}{4}$ of a circle, d. 1 to 2 inches, margin entire, gills in young plants simple, in older ones bifid, stalk short or none. A. *lateralis*. Huds. Bolt. A. *semipetiolatus*. Lightf.

—— On decayed branches. 8—10. *Bolt*. 72. 3.

mol'lis. 301. A. Gills ochre-colour, 8 in a set, pileus whitish, convex, variously shaped, almost gelatinous (1 or 2 inches long, $\frac{1}{2}$ to 1 broad, stalk or root small, dark coloured). Schæf. Dicks. A. *vulneratus*. Batsch.

—— On moss, in plantat. *Schæff*. 213. *Batsch*. 38.

ficoi'des. 302. A. Gills watery brown, 4, or 8 in a set, pileus light yellow brown, surface cracked (centre depressed, d. $\frac{1}{4}$ to $1\frac{1}{2}$), stalk short, light brown, clothy. A. *stypticus*. Bull. A. *betulinus*. Bolt. A. *depluens*. Batsch.

— On alder stumps. 11—1. *Batsch*. 122. *Bolt*. 72.

resupina'tus. 303. A. Gills light brown, pileus light brown, flat (thin, d. $\frac{1}{4}$, generally resupinate), stalk very crooked, eccentric (not $\frac{1}{4}$ inch long). A. *Flurstedtiensis*. Batsch.

—— On rotten wood. Autumn. *Batsch*. 124.

renifor'mis. 304. A. Gills pale buff, 4 in a set (margin sometimes crenate), pileus bright brown, reniform ($1\frac{1}{2}$ by $2\frac{1}{2}$), margin curled, undulated (stalk $\frac{1}{4}$ inch long, and $\frac{1}{4}$ inch broad). A. *flabelliformis*. Bolt.

—— On the sides of trees. 2. *Bolt*. 157.

fœ'tens. 305. A. Gills yellowish, mostly in pairs, broad, distant, pileus dirty buff, convex, margin involute, ($1\frac{1}{2}$ to 2 inches over, stalk or root ? hard, thick, blackish, not $\frac{1}{2}$ inch long). A. *fœtidus*. With.

—— On the bark of willows. Stackh. ——

8. *Stalks none* (sessilis, flabelliformis. Var. 2.).

applica'tus. 306. A. Gills grey, 2 to 4 in a set, limber, diverging from the centre, pileus dark brown grey, rather convex. (Plant fixed by the top of the pileus, circular, or oblong, d. 1). Batsch. Dicks.

—— On rotten wood, &c. —— *Batsch*. 24. 125.

ro'seo-al'bus. 307. A. Gills rose-colour, 3 in a set, pileus nearly circular (d. 1 to $1\frac{1}{2}$), white, thin, sattiny.

— On fallen branches in Eland Park. 9.10. *Bolt. dr.*

Descr. The *Gills* 3 in a set, thin, tender, and of a pleasant province-rose colour. The *Pileus* white, sattiny to the touch, thin, very delicate. The whole very light and slender, and shrinking almost to nothing in drying. Bolt. MSS.

308. A. Gills reddish yellow to reddish brown, numerous, thin, very much branched, pileus pale brown buff, tomentous, irregularly semicircular (and marked with concentric lines.) LIN. BOLT. &c. Lin. Char. "Stemless, coriaceous, villous, margin obtuse, gills anastomosing." *betuli'nus.*

— Stumps of trees. *Bull.* 346. *Alow. fig. Bolt.* 72. 1.

Var. 2. Pileus green. A. *coriaceus.* Bolt.

— On old pales. 1. *Bolt.* 158.

Obs. The plants figured by Bolton adhered to decayed wood by the centre of the resupinate pileus, the pileus velvety marked with concentric circles of a paler or darker buff colour, the whole surface afterwards becoming of a dirty dull dark green, the margin thin, lobed and curled. See Bolton's Append. p. 158.

309. A. Gills brown buff, in pairs, pileus gently convex, semicircular, velvety, brown grey (fixed by the margin). LIN. SCHÆFF. BULL. Lin. Char. "Stemless, gills bifid, powdery." *al'neus.*

—— On decaying alders, &c. 12—4. *Schæf.* 246.

310. A. Gills brown, undulated, irregularly anastomosing, pileus brown, marked with concentric lines of various hues, (nearly) semicircular, flattish, soft, and clothy (1 to 10 inches over, or more). LIN. SCHÆF. BOLT. Lin. Char. "Stemless, gills labyrinth-like." *querci'nus.*

—— On decayed trees, &c. *Bull.* 352. *Bolt.* 73.

Obs. This plant in the first stages of its growth is of a circular figure, growing horizontally with the gills upwards, the gills at this time are distinct and branched, and their sides are united by small lateral processes. As it advances in growth the pileus separates from the wood, till it only adheres by one edge, and gradually takes a horizontal position with the gills downwards. After some time the small lateral processes encrease so much as to equal the gills in height and substance, and the gills become transformed into oblong pores. In this state it connects the Agarici with the Boleti. See Bolton, who has very accurately described this change in the position and structure of the plant, and illustrated it with figures.

Var. 2. Pileus green, soft, clothy. *Bolt.* 73. d. Is the green coat a species of Byssus?

—— MERU'LIUS. (HALLER.) *Pileus* with veins underneath.

Obs. This genus is allotted a more comprehensive character by Dr. Withering than by Haller, for besides the species, which are veined underneath, he refers it to

those, which have gills of the same substance with the rest of the plant. It would be extremely desirable to diminish the number of species of Agaricus by the establishment of another genus, provided a character could be constructed sufficiently definite to admit of the species being referred to it with certainty, but unless this be effected, the investigation will be rendered more difficult instead of being facilitated. And I am of opinion that little or no advantage has been gained by the attempt of Dr. Withering, because in the first place, it is by no means easy to determine which plants have gills of the same substance with the rest of the plant; and secondly, the number of species removed by him from the genus Agaricus to Merulius does not exceed nine, all of which may be made out without much difficulty as Agarics by means of his very judicious subdivisions of that genus. Besides there appears to me much more reason for dividing the genus Merulius of Withering into two, than the genus Agaricus of Linnæus, for the Agarics with gills of the same substance, are much more closely allied to those with gills of a different substance, than the veined Merulii to the gilled ones. However for the convenience of those who are accustomed to Dr. Witherings distribution of this tribe of plants, I have subjoined the character of Merulius as given by him, and a synopsis of the species of his first division, with references to the pages where they are described.

MERULIUS. *Pileus* with gills or veins underneath, of the same substance with the rest of the plant.

1. *With a stem, and gills underneath.*

Umbelliferus. M. Agaricus *umbelliferus*. Lin. See page 361.
androsaceus. M. Ag. *androsaceus*. Lin. See page 336.
collariatus. M. Ag. *androsaceus*. Huds. See Ag. *rotula*. page 372.
buccinalis. M. Ag. *buccinalis*. Batsch, See page 336.
fuscus. M. See Agaricus *fuscus*, page 349.
Cantharellus. M. Ag *Cantharellus*. Lin. See page 343.
tubæformis. M. Peziza *tuba*. Bolt. See Merulius *tubæformis*, and Peziza *tuba*.
fœtidus. M. See Agaricus *fœtidus*, page 368.
squamula. M. Ag. *squamula*. Batsch. See page 361.
cornucopioides. M. Ag. *cornucopioides*. Bolt. See Merulius *cornucopioides*, and Agar. *cornucopioides*, page 339.

1. *Stipitate.*

undulatus. 1. M. Stalk hollow, gradually expanding into a funnel-shaped pileus, dusky gold-colour, and veined without, dusky brown within (margin undulated, h. of the plant 1 to 2, d. of the pileus $\frac{1}{2}$ to $\frac{3}{4}$). WITH. Peziza *undulata*. Bolt. Elvella *tubæformis*. Bull. Schæf.
— Woods. 10. *Bull.* 461. *Schæf.* 157. 2. *Bolt.* 105. 2.

2. M. Funnel-shaped, stalk hollow, pileus dirty dark brown within (h. 2 to 3, d. 1½), veins purple, arising from the base of the stalk, anastomosing. With. Peziza *cornucopioides*. Bolt. See Peziza *cornucopioides*. *purpu'reus.*
—— In dry woods. —— *Bolt.* 103.

3. M. Stalk hollow, expanding into a funnel-shaped pileus, of a greyish mouse-colour, veins somewhat gill-like, silvery grey. (Stalk tough, h. 2, d. of the pileus 1½ to 2½.) With. A. *infundibuliformis*. Bolt. Ag. *cornucopioides*. Bull. *infundibulifor'mis.*
— Lee bank shrogs, near Halifax. 10. *Bolt.* 34.

Obs. In some young plants the mouth of the tube is closed by a membrane.

4. M. Stalk cylindrical, pileus trumpet-shaped, whole plant yellow. With. See Peziza *tuba*. *tubæfor'mis.*

5. M. Stalk black brown, twisted, pileus dusky cinnamon, lobed, undulated, veins dead buff brown, arising from the root, spiral, mostly trifid (h. of the stalk 4 or 5, d. ¼, d. of the pileus 3). With. Ag. *cornucopioides*. Bolt. *cornucopioi'des.*
—— In shady woods. 9. *Bolt.* 8.

6. M. Stalk lateral, thick, short (h. about ½), pileus semicircular, pale brown (d. ½), veins somewhat gill-like (anastomosing). With. Ag. *muscigenus*. Bull. *muscig'enus.*
—— On Hypnum *sericeum*. —— *Bull.* 288.

Var. 2. Stalkless, circular, white (very thin, d. ½).
—— On moss. Autumn. ——

M. See Peziza *acetabulum* & *radiculata*. { *acetab'ulum.* / *radicula'tus.*

2. *Stalkless* (muscigenus var. 2.).

7. M. Sessile, membranous, smooth, lobed, margin curled (red brown above, yellow brown beneath, ¾ to 1 inch broad), veins very much branched, anastomosing. With. Helvella *membranacea*. Bolt. Dicks. H. *retiruga*. Bull. *membrana'ceus.*
—— On thatched houses. *Bolt.* 177. *Bull.* 498. 1.

8. M. Sessile, concave, hirsute (clove-col. above, with darker concentric lines, paler underneath, d. ¾ to 1½), margin crenate, undulated, ciliate, veins branched. With. Helvella *caryophyllæa*. Bolt. Dicks. Schæf. *caryophyllæ'us.*
—— In pine plantations. *Schæf.* 325. *Bolt.* 173.

1200. BOLE'TUS. *Fungus* horizontal, porous underneath. (*Seeds* in the tubes.)

1. *Tubes united.*

A. Stalk central.

pellu'cidus. 1. B. Tubes white, very short, pileus concave, rich brown, scaly (d. 2), stalk whitish, thick (conical, h. $\frac{1}{2}$, d. $\frac{1}{2}$). WITH.

—— Pool dam, Edgbaston. 8. *Schæf.* 122.

subfus'cus. 2. B. Tubes white, very short, pileus light brown, convex (d. 4 or 5), stalk pale brown (reticulated, h. 3, d. 2), root conical. WITH.

—— Under trees. 9. *Schæf.* 130. *somewhat like it.*

cyanes'cens. 3. B. Tubes white, brownish with age, pileus brown, convex, very fleshy (d. 5 to 8), stalk brown (h. 2 to 3, d. $1\frac{1}{2}$ to near 2), rounded at the base. SIBTH. WITH.

—— Walks of Magdalen Coll. Oxf. 9. *Bull.* 369.

Obs. The flesh white, changing to blue. SIBTH.

polypo'rus. 4. B. Tubes white, very short (l. $\frac{1}{20}$ to $\frac{1}{10}$), pileus brown, irregular (d. 3 to 6), flesh very thin, stalk brown, rarely central (h. 2, d. $\frac{1}{2}$ to 1). BULL. WITH.

—— On decayed wood. 6. *Bull.* 469.

Var. 2. Stalk lateral, or none, pileus white, becoming brown black. B. *calceolus.* Bolt. *Pl.* 168.

leptoceph'alus. 5. B. Tubes white, pileus tawny bay, flat, thin (d. 1), stalk short, brownish (h. $\frac{1}{2}$, d. $\frac{1}{12}$).

—— On rotten sticks. DICKS. *Jacq. misc.* 1. 12.

aurantia'cus. 6. B. Tubes whitish or pale brown (l. $\frac{1}{3}$), pileus red orange (d. 4 to 8), stalk whitish, rough, nearly cylindrical (h. 2 to 8, d. $\frac{1}{2}$ to $1\frac{1}{4}$). BULL.

—— Plantations. 6. *Bull.* 236. *Sow.* 110.

Obs. Sowerby is of opinion that B. *procerus* belongs to this species. See B. *bovinus.* var. 3.

bovi'nus. 7. B. Pileus smooth, cushion-like, marginate, pores compound acute, porules angular, shorter. (Tubes pale yellowish brown, unequal in length, pileus brown, or olive, clammy (d. 3 to 6), stalk thick, pale brown with many rusty stains, h. 3 to 7, d. $\frac{3}{4}$ to $1\frac{1}{2}$. WITH.)

—— Parks. 10. *Bull.* 60.

Var. 2. Tubes pale yellowish, pores tawny brown, pileus convex, buff to dark brown, stalk red

brown, reticulated at bottom. With. B. *bovinus*. Bolt. *Pl.* 85.

Var. 3. Tubes white, or brown white, pileus brown, clothy, semi-oval, stalk dirty white, or olive, tapering upwards (h. 5 or 6). With. B. *procerus*. Bolt. *Pl.* 86.

—— 4. Pileus dark brown, stalk rough, with scurfy scales pointing upwards. With. B. *scaber*. Bull. *Pab.* 132, & 489. f. 1. *Sow.* 175.

—— 5. Pores white, angular, pileus brown, scaly, and tessellated. With. B. *strobiliformis*. Dicks.

—— Woods. 8. *Dicks.* 3. 2.

8. B. Pileus whitish, pores difform, oblongo-flexuose, snowy. (Tubes brown (decurrent), pores pale brown, oblong, pileus yellowish brown, with red brown scurfy scales (d. 3), stalk brownish, taper. With.) *subsquamo'sus.*

—— Amongst heath and furze. Stackh. 6.—

9. B. Perennial, pileus flattish on both sides. (Tubes ochrey brown, pileus flattish, centre depressed, striated (with hairs), marked with alternate brown and tawny circles (d. 1 to $1\frac{1}{2}$, coriaceous), taper (h. 1), stalk brownish. With.) *peren'nis.*

—— Woods, &c. P. 1—12. *Bolt.* 87.

Var. 2. Tubes, pileus, and stalk cinnamon-col. (Pileus concave, villous, d. 1, pores angular, stalk solid, villous.) With. B. *cinnamomeus*. Jacq. Dicks. *Bull.* 254. *Jacq. coll.* i. 2.

10. B. Pileus yellow, somewhat tomentous, pores rather angular, difform, tawny, flat, stalk yellow. *subtomento'sus.*

— Woods near Eshar, Surry. 9—10. *Mich.* 68. 2.

11. B. Tubes olive-colour, pores rich red brown (crimson in a young state), pileus and stalk red cinnamon (h. $2\frac{1}{2}$ to 3, d. $\frac{3}{4}$ to $1\frac{1}{4}$). Bull. With. *rubeola'rius.*

—— Under trees. 8. *Bull.* 100. *Schæf.* 107.

12. B. Tubes decurrent, red or yellow red, pileus yellow, smooth, nearly flat (d. 3 nearly), stalk dirty yellow (h. 1 to $1\frac{1}{2}$, d. $\frac{3}{8}$). Bull. With. *pipera'tus.*

—— Hainault Forest. —— *Sow.* 34.

13. B. Tubes very short, buff-colour, pileus colour of horn, convex, centre depressed, stalk col. of horn, black at the base (often eccentric). Bull. With. *nummula'rius.*

—— On rotten sticks. 9. *Bull.* 124. *Sow.* 89.

nigripes. 14. B. Pores ochrey red, tubes decurrent, pileus whitish (d. nearly $\frac{3}{4}$), stalk black (about 1 inch high). With.

—— On stumps of trees. Stackh. ——

elephanti'nus. 15. B. Tubes yellow, short, pileus dead white, convex, but very irregular (d. 2 to 4), stalk yellow, thick and short (h. 1 to 2, nearly the same in diam.). With.

—— Plantations. 9. *Schæf.* 134. 135. *resemble it.*

edu'lis. 16. B. Tubes green (bright) yellow, pileus brown (sometimes nearly white, convex, d. 5 to 8), stalk gold-col. (h. 3 to more than 5, d. 1 to $1\frac{1}{2}$).

— Peckham woods. Autumn. *Sow.* 111. *Bull.* 494.

gregarius. 17. B. Tubes yellow, pores oblong, unequal, pileus thin, flattish, chesnut (d. 2 to 4), stalk chesnut, pinky below (h. 3 to 4, d. $\frac{1}{2}$). With.

—— Pendarvis. Stackh. Summer. *F. Dan.* 1018.

luteus. 18. B. Pileus cushion-like, rather viscid, pores rounded, convex, very yellow, stalk white. (Tubes deep yellow, pileus deep bay, striated (d. 3 to 4), stalk dirty white (bulbous at the base, curtain whitish), ring permanent. With).

—— Woods, &c. 8—10. *Schæff.* 114.

olivaceus. 19. B. Tubes bright yellow, pileus olive brown (cushion-like, d. 3 or more) stalk brown yellow, yellow or crimson above (h. 3 or 4, d. $\frac{1}{2}$ to nearly 1). With. B. *luteus.* Bolt.

—— Amongst moss. 9. *Bolt.* 84. *Schæff.* 105.

Obs. The flesh is yellow, but instantly turns blue, as well as the tubes, on being wounded.

Var. 2. Pileus dark brown, woolly, stalk crimson at the base. Is it a distinct species? See With. Vol. iv. p. 319.

sanguineus. 20. B. Tubes yellow, pileus blood red, becoming red brown (d. $\frac{3}{4}$ to $1\frac{1}{4}$, when old 3), stalk yellow with broad crimson streaks (h. 1 to $2\frac{1}{2}$, d. $\frac{3}{8}$ nearly). With.

—— Edgbaston Park. —— August. ——

chrysenteron. 21. B. Tubes yellow, decurrent, pileus gently convex, pinky red (d. 2 to 3), stalk yellow below, pinky upwards (h. 2, d. $\frac{1}{2}$). Bull. With.

—— Rookery, Edgbaston. 7. *Bull.* 393.

flavus. 22. B. Tubes brown yellow, rather decurrent, pileus orange, shining, viscid, stalk yellow, (Curtain

white, ring white.) WITH. B. *annularius.* Bull. Bolt.

—— Plantations. 4—8. *Bolt.* 169.

23. B. Tubes yellow, pileus red buff (d. 2 to 4), stalk bright yellow (h. 3 to $2\frac{1}{2}$, d. $\frac{3}{8}$), juice milky. WITH. *lactif'luus.*

—— Edgbaston Park. 8. *Schæf.* 138.

24. B. Tubes pale yellow, pores minute, angular, pileus dirty yellow, convex, thin (d. 1 to 2), stalk dirty yellow, hard, tough, sometimes eccentric (h. 1 to 2, d. $\frac{1}{6}$, thicker at the base). BOLT. WITH. *substric'tus.*

—— Near Halifax, &c. —— *Bolt.* 170.

B. Stalk lateral (*polyporus* var. 2.).

25. B. Tubes white, decurrent, pores white, pileus white (or buff, d. $\frac{1}{2}$ to 4), lobed, stalk whitish. WITH. *al'bidus.*

—— On bits of decayed wood. 8. 9. *Schæf.* 124.

26. B. Tubes whitish, pileus chesnut, shining (semicircular, flat, d. 3 to 8), stalk hard, uneven, chesnut, shining (h. 3 to 5, d. 1 to 2). JACQ. WITH. B. *lucidus.* Curt. *rugo'sus.*

—— Stumps of trees. 7—9. *Sow.* 134. *Curt.* 224.

27. B. Tubes white, pileus brown (greyish brown), lobed, imbricated, stalk black at the base, very irregular. DICKS. WITH. *frondo'sus.*

—— Bottoms of trees. — *Bolt.* 76. *Sow.* 87.

28. B. Tubes pure white, very short, pileus pinky brown (2 to 4 broad, 3 to 8 long), margin incurved, stalk black (short, or wanting). BOLT. WITH. *betuli'nus.*

—— Stumps of trees. 5. *Bolt.* 159.

29. B. Tubes dirty or ochrey white, pileus golden yellow, difform, laciniated, curled, stalk brown. SCHÆF. DICKS. WITH. *crista'tus.*

—— Trunks of trees. DICKS. *Schæf.* 316. 317.

30. B. Tubes yellow white, short, pores large, angular, pileus pale buff, pencilled with feather-like scales (d. 6 to 12, or more, stalk brown, short, sometimes none). WITH. BOLT. HUDS. *squamo'sus.*

—— Stumps of trees. 6. *Bolt.* 77.

31. B. Tubes dirty yellow, decurrent, pores yellowish, pileus dirty yellow, stalk dark brown (h. *rangiferi'nus.*

1½ to 3, d. ¼), branched (branches digitate). Bolt. With. Clavaria *hypoxylon*. β. Huds.
—— Logs of wood in cellars. —— *Bolt.* 138.

calce'olus. 32. B. Tubes buff (decurrent), pores very small, pileus deep buff to chesnut, hollowed in the middle, margin thin, undulated (2 to 4 inches over, stalk white, conical, h. nearly 1, d. ¼, or more). With.
— Stump of an ash. 6. *Bull.* 46. B. *elegans.* 445. 2.

Obs. Sowerby seems to think that B. *calceolus.* Bull. 360., and 445. 2., and B. *elegans* 46. belong to B. *nummularius.* See B. *nummularius.* P. 387.

latera'lis. 33. B. Tubes yellow, very short (pores very minute), pileus dead yellow, thin, smooth (d. 1 to 2), stalk yellow (about one inch long). Bolton. With.
—— On a fallen willow. 8. *Bolt.* 83.

C. Stalkless, Parasitical.

suberо'sus. 34. B. Cushion-like, white, even (soft as a sponge), pores acute, difform. (Pileus convex, white, tomentous, becoming smooth, and pale brown, even, pores white. Bolt.)
—— Trunks of ash-trees. P. 1—12. *Bolt.* 162.

medul'lapa'nis. 35. B. Crustaceous, white, spreading, difform. (Pores very small, on the upper surface only, oblique. Jacq. With.)
—— Rotten wood, &c. 4. *Bolt.* 167. *lower fig.*
Var. 2. Coriaceous, thin, pores very shallow. 10—2. B. *Proteus.* Bolt. *Pl.* 166.

salici'nus. 36. B. Tubes white to tawny, very short, pileus semicircular, whitish, smooth, thin, soft, leathery (d. 2 to 5). Bull. With. B. *albus.* Huds.
—— On willows. 5—10. *Bull.* 433. 1.
Var. 2. Pileus white, downy, crenate, 2 to 4 inch. over, 3 to 6 long, margin lobed, undulated, curled. Var. 2. With. B. *albus.* Bolt. *Pl.* 78.

suave'olens. 37. B. Even above, growing on willows. (Tubes very long, white changing to tawny, pileus smooth, semicircular, white or tawny, flesh yellow brown, d. 2 to 5, or more. Bull. With.)
—— Trunks of Willows. Autumn. *Bull.* 310.

Obs. Withering gives B. *discoideus* of Dickson as a synonym; but Dickson gives the following char. of his plant, "Stalkless, flattish, villous, wrinkled, tubercled, dirty white, pores

labyrinth-form, dirty white," and says that his plant does not agree with B. *suaveolens* Lin., which is cushion-like, even, not villous, and has rounded pores. He refers however to Bull. *Tab.* 310. See Dicks. Fasc. iii. 21.

38. B. Pores whitish, ciliate, angular, pileus brown, woolly. LIGHT. *spongio'sus.*
—— Trunks of trees. *Battar.* 33. D.E.F.G.H.

39. B. Pileus downy, d. 2 to 3, with different coloured stripes, pores white (very small). *versic'olor.*
—— On trees, rails, &c. P. — *Bolt.* 81.

Obs. When young, the pores are uppermost.

40. B. Tubes dark brown, long, pores rich yellow brown, pileus dark red brown, semicircular very uneven (br. $1\frac{1}{2}$ to 3, l. 3 to 5). BULL. WITH. *cuticula'ris.*
—— Stumps of trees. 12. *Bull.* 462.

41. B. Tubes rust-coloured, erect, very long, pores very minute, pileus rust-coloured, thin, supine. BULL. WITH. *crypta'rum.*
—— On decayed branches. *Bull.* 478. *Bolt.* 165.

Obs. The pores are scarcely discoverable by the naked eye, the pileus is turbinate, or creeping. BOLT.

42. B. Tubes red brown, long, pores sinuous, pileus wrinkled, zoned, brick red, reniform, l. 2 to 4. BULL. WITH. B. *confragosus.* Bolt. *labyrinthifor'mis.*
—— On old trees, &c. 9. *Bolt.* 160. *Bull.* 491. 1.

43. B. Tubes grey brown, very short, labyrinth-form, pores very small, difform, pileus woolly, zoned, nearly of the same colour. BULL. WITH. BOLT. *uni'color.*
— Stumps of trees. P. — *Bolt.* 163. *Bull.* 408.

Obs. It is generally halved, and adheres by one side, but sometimes there is a kind of spurious stalk. BOLT.

44. B. Tubes very short, pores (minute) blossom-coloured, pileus brownish, or ash-coloured, arched, warty, thin, lobed, the margin ciliate. WITH. *lacinia'tus.*
—— Comb Wood, near Bath. STACKH. ——
Var. 2. Pileus smooth, tomentous, sending out root-like suckers from the under-side.
— Found near the former. STACK. See With.

45. B. Pores angular, purplish (changing to brown), somewhat toothed, pileus depressed, wrink- *abieti'nus.*

led, striped, whitish (woolly, greyish, whiter at the margin, d. nearly 1). Dicks. iii.22. With.
—— Decaying trunks of larches. *Dicks.* 9. 9.

his'pidus. 46. B. Tubes yellow red, ciliate (pores blackish tawny to black), pileus bright red brown, hispid (4 inches wide). Bull. With.
—— On old oaks. —— *Bull.* 210.
Is it specifically different from B. *velutinus?*

sulphu're-us. 47. B. Tubes and pores sulphur-colour, pileus bright aurora, streaked (br. 6). Bull. With.
— Walnut, &c. trees. 3—11. *Sow.* 135. *Bull.* 429.
Obs. It is sometimes very much imbricated, in which case the parts that are sheltered become porous on the upper side. Sowerby.

Var. 2. Pileus pale yellow, or buff, thick, tough, elastic, imbricated. With. B. *coriaceus.* Huds. B. *tenax.* Lightf. Bolt.
— Trunks of trees. P. 1—12. *Bolt.* 75.
—— 3. Pileus white.
—— 4. Pileus much branched, and covered with pores. B. *ramosus.* Bull. *Tab.* 418.

veluti'nus. 48. B. Tubes brown yellow, pores pale brown, pileus of an irregular form, villous, hairs dense, erect, silvery grey, or yellowish, becoming black. With.
—— Trees. 8—10. ——
Var. 2. Tubes yellow, ciliate, pileus (sometimes smooth, reddish brown,) covered with black or brown hairs. B. *villosus.* Huds. B. *hispidus.* Bolt.
— Trunks of trees. P. 1—12. *Bolt.* 161.
—— 3. Tubes and pores golden yellow, difform, pileus hirsute, golden yellow to orange brown, irregularly lobed.——See Bol. *hispidus.* See also With. vol. iv. p. 332.
— On the ground under oaks. — *Bolt.* 164.

lach'ry-mans. 49. B. Coriaceous, semi-oval, orange-colour, with reticulated wrinkles, and a broad white border. Wulf.
— On decaying timber. *Jacq. misc.* ii. 8. 2. *Sow.* 113.
Obs. The porous surface is very unequal, the colour varying from yellow to orange, or a bright red brown. The fructific. often forms a circle from 1 to 8 inches in diam., surrounded with an outer substance, which is tender, pithy, or cottony, of a pale brown. The upper part is commonly clothed with a white mucor. The pithy substance is often found without fructific., and is then very dry, whence the name of *dry rot.* B. *lachrymans* of Bolton is a very different species. Sowerby.

50. B. Cushion-like, even, pores very minute. (Tubes green, grey, red, or brown, pores yellowish changing to red brown, very fine, pileus shaped like a horse's hoof, smooth, red brown to blackish. With.) *ignia'rius.*
—— On willows, &c. P. 1—12. *Sow.* 132.

Obs. The pileus is convex, 2 to 8 inches broad, very hard, and marked with concentric ridges. With.

Var. 2. Surface softer, flesh like cork, not fibrous. *Bolt.* 80.

—— 3. Circular or elliptical, and stratified in a cylindrical form, pores tomentous. Stack. See With. vol. iv. p. 333.

51. B. Cushion-like, unequal, obtuse, pores cylindrical (round), equal, glaucous (or rust-coloured, pileus white to brown, margin thick). *fomenta'rius.*
—— Trunks of trees. A. 1—12. *Sow.* 133.

Var. 2. Colour uniform. Ray Syn. 24. 15.

2. *Tubes distinct.*

Obs. The species arranged under this division have been referred by Bulliard, Withering, &c. to a new genus, Fistulina, and the following characters are given to it and Boletus.

—— Fistulina. *Pileus* with separate tubes underneath. *Seeds* in the tubes.

Boletus. *Pileus* with united tubes underneath. *Seeds* in the tubes.

52. B. Stalkless, convex, somewhat lobed, red, even, pores cylindrical (pale) yellow. Huds. Schæf. (Tubes very slender, unequal, pileus thick, soft, flesh-coloured. With.) Fistulina *buglossoides*. Bull. Fist. *hepatica*. With. *hepat'icus.*
—— Trunks of oaks. A. 9. 10. *Bull.* 464. *Sow.* 58.

Obs. It has sometimes a thick red lateral stalk, and the tubes vary much in colour, being sometimes green and brown red.

53. B. Stalkless, coriaceous, or woody, tubes uppermost, oblique, unequal, cohering at the base, white, or buff, becoming brown. Huds. B. *obliquus* & *lachrymans*. Bolt. Fistulina *pectinata*. With. *pectina'tus.*
— On trunks of trees. P. 1—12. *Bolt.* 74. 167. 1.

1211. HYD'NUM. *Fungus* horizontal, echinate underneath. (*Seeds* on the prickles.)

1. *Stipitate.*

coralloi'des. 1. H. Stipitate, whitish, very much branched, branches compressed, the ends deflected. SCOP. DICKS. i. 19. (Pileus none, prickles subulate, incurved.)

—— Trunks of trees. 8. *F. Dan.* 450. *Ger.* 1582. 4.

auriscal'pium. 2. H. Stipitate, pileus halved. (Pileus semicircular to nearly circular, dark brown, tough, $\frac{1}{3}$ to $\frac{3}{4}$ in. diam., prickles brown, unequal, hard, stalk brown, hairy, about 2 inches high.)

—— Decaying cones of firs. 9. 10. *Curt. Bolt.* 90.

floriformе. 3. H. Stipitate, coriaceous, pileus turbinate, velvety (whitish becoming) purplish, (prickles imbricated, pale red,) stalk black, rather woody (obconical). SCHÆF. DICKS. i. 19.

—— Woods near Bungay. WOODW. *Schæf.* 146.

incarna'tum. 4. H. Stipitate, pileus slightly convex, brown red, margin deflected (d. 1.), prickles flesh-colour, subulate, stalk ascending, paler flesh-colour (h. about 1, d. $\frac{1}{4}$ to $\frac{1}{2}$). BOLT. MSS.

—— In Burks Shroggs near Halifax. 9. *Bolt. dr.*

imbrica'tum. 5. H. Stipitate, pileus convex, imbricated. (Prickles (decurrent) pale red brown, pileus red brown with darker scales, stalk pale brown, or brownish white. WITH.)

—— Woods. 9. 10. *Bull.* 409. *Sow.* 73.

Var. 2. Pileus with the margin incurved, stalk whitish. WITH. *Schæff.* 273.

—— 3. Prickles whitish, pileus pale flesh colour, smooth. WITH. *Mich.* 72. 2.

repan'dum. 6. H. Stipitate, pileus convex, smooth, flexuose. (Pileus lobed, cinnamon-col., prickles oblique, soft, bright cinnamon, stalk cylindrical, h. 4 or 5, d. $\frac{1}{3}$.)

—— Woods. 9—11. *Bolt.* 89. *Sow.* 176.

Obs. The prickles are sometimes divided at their apex.

Var. 2. V. 2. With. Pileus convex, white, margin undulated, d. about 3, prickles white, soft, stalk white, solid, h. 3, d. $\frac{1}{2}$ or more, club-shaped at the base. H. *imbricatum.* Bolt.

—— In a lane near Halifax. 9. 10. *Bolt.* 88.

7. H. Pileus flattish, white, centre depressed, pinky, margin undulated (d. about 1), prickles imbricated, white, toothed at the apex, stalk light buff (h. about 1, d. $\frac{1}{4}$). Bull. Sow. *sublamellosum.*
—— In woods. 10, 11. *Bull.* 453. 1. *Sow.* 112.

Obs. The prickles are more or less concave on one side, giving it the appearance of a Boletus to which it is nearly allied. Sow.

2. Stalkless, or nearly so.

8. H. Nearly stalkless, red brown, clustered, coriaceous, lobed, prickles tawny red, imbricated. Sibth. With. *crispum.*
—— Cloverfields. Sibth. 10. *Schaff.* 147. 1.

9. H. Sessile, imbricated, yellow brown, with zones of a darker colour (nearly semicircular, diam. $\frac{1}{2}$). Sow. With. *Davisii.*
—— Decaying apple tree. Davies. *Sow.* 15.

Obs. Its upper surface is very much like Boletus *versicolor.*

10. H. Nearly stalkless, convex, cordate, pendulous, whitish (d. 1 to 3), prickles imbricated, the ends subulate, yellowish brown. Dicks. ii. 24. Bull. *erinaceus.*
—— On trees. Mr. E. Forster, jun. *Bull.* 34.

11. H. Sessile, roundish, coriaceous, or woody (d. $\frac{1}{10}$ to $\frac{1}{2}$), prickles short, soft, erect, pale to strong gold-colour, becoming grey. Bolt. *minimum.*
—— On rotten oak. —— *Bolt.* 171.

12. H. White, membranous, tender, spreading; prickles short (white), undivided. With. *diaphanum.*
—— Under a hollow bank. 10. 11. ——

13. H. Tawny, membranous, spreading, the ends of the prickles pencil-form. Bull. With. *Barbajovis.*
—— Decayed wood. 10. *Bull.* 481. 2.

1212. Phallus. *Fungus* reticulated above, even underneath. (*Seeds* in the reticulations.)

1. Ph. Pileus ovate, cellular, stalk naked, wrinkled. *esculentus.*

Var. 1. Buff-coloured.
Morel. Banks. 5. *Sow.* 51. *left hand fig.* *Bolt.* 91.

Var. 2. Blackish.
Morel. Sandy heaths. *Sow.* 51. *right-hand fig.*

Obs. This species is considered as a Helvella by Mr. Sowerby. ——

impu'dicus. 2. Ph. Volvate, stipitate, pileus cellular (white, the summit pervious, stalk 4 or 5 inches high).
—— Hedge-banks. 6—10. *Curt.* 199. *Bolt.* 92.

cani'nus. 3. Ph. Volvate, stipitate, pileus red, cellular, acute, closed at the end. HUDS.
—— Woods, &c. 7—9. *Curt.* 235.

1214. HELVEL'LA. *Fungus* turbinate. (*Pileus* even on both sides.)

1. *Stipitate.*

agaricifor'mis. 1. H. Stalk cylindrical (filiform, h. about $\frac{1}{2}$), pileus hemispherical, whitish (d. $\frac{1}{8}$). BOLT.
—— Stumps, & roots of trees. *Bolt.* 98. 1. *Sow.* 57.

na'na. 2. H. Stalk cylindrical, white, smooth (h. $\frac{1}{4}$, d. $\frac{1}{8}$), pileus lobed, plaited, white above, brown underneath (d. $\frac{3}{10}$). WITH.
—— Under trees amongst moss. STACK. 8. 9. —

mi'tra. 3. H. (Stalk watery white to dark brown, sinuous, furrowed.) Pileus deflected, adnate, lobed, difform (brownish, becoming black in decay).
—— In woods, &c. 8—11. *Sow.* 39.

spatula'ta. 4. H. Stalk cylindrical, wrinkled, white, pileus (or head) yellow, inflated, compressed, oblique. Sow. H. *feritoria.* Bolt. Clavaria *spathula.* Dicks. With.
—— In plantations. Autumn. *Sow.* 35. *Bolt.* 97.

Obs. This plant is so nearly allied to Lycoperdon, Peziza, and Clavaria, that it is by no means easy to determine to what genus it ought to be referred. The seeds are emitted in the form of smoke from pores in the margin, and may probably be imbedded in the substance, as in Peziza *vesiculosa.* See Sowerby.

gelatino'sa. 5. H. Stalk tubular, cylindrical, brownish yellow (h. 2 to nearly 4, d. $\frac{1}{4}$ to $\frac{1}{3}$), pileus convex, brown yellow, margin deflected, rather lobed, plaited (d. $\frac{1}{2}$ to 1). WITH.
—— In woods. 10. *Sow.* 70. *Bull.* 473. 2.

clava'ta. 6. H. Stalk somewhat compressed (flexuose, yellow, h. about $2\frac{1}{2}$), pileus (ovate, oblique, yellow, l. nearly 1, br. $\frac{1}{2}$,) with the margin deflected. DICKS. i. 19. SCHÆF.
—— Woods. Autumn. *Schæf.* 149. *Mich.* 82. 2.

au'rea. 7. H. Stalk short (attenuated at the base, yellow), pileus umbrella-like, gold-coloured (above, paler underneath). BOLT. WITH.
—— On sticks, &c. Autumn. *Bolt.* 98. 2.

Var. 2. Pileus concave, stalk shorter and thicker. Peziza *aurea*. Sowerby.
—— On cut stumps of oak. —— *Sow.* 150.

8. H. Stalk very short, black brown, pileus ochre-col. above (blackish underneath, slightly convex, d. $\frac{1}{6}$ to $\frac{1}{4}$), plant very small, cartilaginous. Bolt. *fi'buli-for'mis.*
—— On sticks, or roots near streams. *Bolt.* 176.

9. H. Stalk tubular, cylindrical, yellow (h. $1\frac{1}{2}$ to 2, d. $\frac{1}{8}$), pileus yellow brown with reddish striæ, conical, silky. Sow. With. *Relha'ni.*
—— N. side of Gogmagog hills. Relh. *Sow.* 11.

10. H. Stalk nearly cylindrical, tawny (h. 2 to 3), pileus flattish, centre depressed, margin involute (d. about 2), greyish brown above, lighter and striated underneath. Schæff. Sow. *infundib'uli-for'mis.*
— In Kensington gard. 10. *Sow.* 153. *Schæff.* 277.

Obs. Schæffer's specimens appear to have been more funnel-shaped.

11. H. Stalk thicker above, greenish grey (h. about 1), pileus brown buff, funnel-shaped, margin lobed, lobes irregular, toothed, plant woody. *panno'sa.*
—— In a garden at Hampst. Hunt. *Sow.* 155.

12. H. Almost sessile, coriaceous, clustered, pileus funnel-shaped, brown, with flocculent radiated striæ, margin incised. Dicks. i. 20. Schæf. Bolt. See Merulius *caryophyllæus*. *caryophyllæ'a.*

13. H. Coriaceous, single, or clustered, stalk solid, inversely conical, slender, brown grey (h. $\frac{1}{2}$ to $1\frac{1}{2}$), pileus flattish, smooth, striated, brown grey, the middle plaited, concave, margin lobed, repand. Dicks. iii. 22. Schæf. *florifor'mis.*
—— Woods. Autumn. *Sow.* 75. *Bull.* 465. 1.

14. H. Nearly stalkless, pileus difform, purple. Dicks. Bolt. Elvela *purpurea*. Schæff. Tremella *sarcoides* and *amethystea*. With. Lichen *sarcoides*. Lin. Syst. veg. *sarcoi'des.*
— Stumps of oaks. 4. *Bolt.* 101. 2. *Schæf.* 333-4.

Obs. The figure of the pileus is extremely various, being hemispherical, funnel-shaped, flower-like, &c. lobed, plaited, curled. The stalk is also of various forms. Sometimes the plant is club-shaped when young. The colour, whilst the plant is fresh, is constantly a dull reddish purple. See Schæf. & Bolt.

15. H. Stipitate, very small (scarcely $\frac{1}{4}$ inch high), very green, pileus difform. Dicks. ii. 24. Fl. Dan. *ærugino'sa.*
—— On rotten wood. —— *F. Dan.* 534. 2.

fuligino'sa. 16. H. Stalk tubular (greyish, furrowed, h. 2 to 4, d. $\frac{1}{8}$ to $\frac{1}{4}$), pileus inflated, angular, plaited, blackish (or olive, d. 1 to 2). Dicks. ii. 25. Schæf. H. *elastica*. Bull. H. *mitra*. Bolt.
—— Fir plantations, &c. *Sow.* 154. *Bolt.* 95.

pla'na. 17. H. Pileus flat, livid, stalk smooth. Huds.
—— Woods. 8—10. ——

2. *Stalkless.*

acau'lis. 18. H. Stalkless. Hubs. See Auricularia *reflexa*.

cartilagin'ea. 19. H. Stalkless (or stalk very short), pileus cushion-like, scarlet (or high orange). Bolt.
—— On old walls, &c. amongst moss. *Bolt.* 101. 1.

membrana'cea. 20. H. Stalkless, membranous, difform, brownish, margin variously lobed, curled, veined underneath, veins branched, anastomosing. Dicks. i. 21. See Merulius *membranaceus*, page 385.

mesente'rica. 21. H. Stalkless, gelatinoso-coriaceous, wrinkled, resupinate, spongioso-villous, ash-colour above, smooth, violet-colour underneath. Dicks. i. 20. See Auricularia *tremelloides*.

rubigino'sa. 22. H. Stalkless, coriaceous, imbricated, velvety above with concentric lines, smooth, pimpled underneath. Dicks. i. 20. See Auricularia *ferruginea*.

1216. Clava'ria. *Fungus* even, oblong. (*Fungus* oblong, simple or branched. *Seeds* dispersed, or collected in tubercles opening at the top).

1. *Simple, without tubercles.* (cornea, elegans, fastigiata.)

gy'rans. 1. Cl. Stalk capillary (pellucid, h. $\frac{1}{3}$ to $\frac{2}{3}$), club terminating cylindrical, rather attenuated at the ends (white, h. $\frac{1}{2}$). Batsch. Relh. Bolt.
—— On putrefying straw, &c. 9. 10. *Bolt.* 112.

Obs. The stalk is curved at the base, but nearly straight above, whilst the plant is vigorous; the colour black under the eye, of a beautiful crimson when placed between the eye and the light. On drying the stalk becomes very much twisted.—See Bolton.

phacorrhi'za. 2. Cl. Stalk very slender, pale brown (h. $\frac{1}{2}$), club subulate, whitish (h. 1), root lentil-shaped. Dicks. ii. 25. Reich. Cl. *gracilis*. Bolt.
— Garden-walks. 10. T. F. Forst. jun. *Bolt.* 111. 1.

3. Cl. Club-shaped, very entire, head obtuse, hollow, red (oblongo-ovate, h. ½ or more) stalk pale yellow (cylindrical, h. 1 or more). Dick. iii. 22. *epiphyl'la.*

—— On decaying leaves in bogs. *Dicks.* 9. 10.

4. Cl. Head compressed, dilated, stalk wrinkled. Dicks. i. 21. See Helvella *spatulata*, p. 396. *Spath'ula.*

5. Cl. Club-shaped, greyish, or buffy, club obtuse, thickest near the summit, hollow, stalk slender, attenuated downwards. Bull. Sow. *cylin'drica.*

— Near Hornsey. Autumn. *Sow.* 90. *Bull.* 463. 1.

Obs. The whole plant is from 1½ to more than 2 inches high, in some specimens the club tapers gradually down into the stalk, in others there is a head obtuse at both ends, 4 or 5 times as thick as the stalk.

6. Cl. Agaric-form, rust-coloured, head obtusely conical, pithy within, stalk slender, roughish above. (Whole plant about an inch high.) Sowerby. *ferrugin'ea.*

—— Under firs, in a plantation, 10. *Sow.* 84.

7. Cl. Undivided, solid, not granulated. With. *hercula'nea.*

Var. 1. Club-shaped, depressed at the top, solid, surface uneven, dirty yellow, or orange (h. about 3, d. 1 to 2 at the top). V. 1. With. C. *pistillaris.* β. Fl. Suec. δ. Huds. *Bull.* 244. *Schæf.* 169.

—— 2. Yellow, or orange, solid, nearly cylindrical, tapering to a point. V. 2. With. C. *pistillaris.* β. Huds. *Bolt.* 110. 1. 4. 5. 6. *from left hand.*

—— 3. Small, acuminate, solid, yellow (not more than ½ inch high). V. 3. With. *Bull.* 463. 4.

—— 4. Whitish, solid, nearly cylindrical, tapering to a point. V. 4. With. Cl. *vermiculata.* Lightf. *Bolt.* 110. 2 & 3, *from the left.*

—— 5. Dull yellow, solid, either entire and obtuse, or cloven and tapering at the end. V. 5. With. Cl. *bifurca.* Bull. C. *vermicularis.* Lightf. *Bull.* 264.

—— 6. Yellow, smooth, cylindrical, when old forked at the end. V. 6. With. *Vail.* 8. 4.

8. Cl. nearly cylindrical, generally undivided, tubular, brittle, smooth. With. *pistilla'ris.*

Var. 1. Tubular, white, thickest upwards. V. 1. With. Sohmid. 15. *Bull.* 463. 1. A. L. M.

Var. 2. Hollow, orange, or brownish yellow. V. 2. With. *Bull.* 463. 1. B. N. O.

—— 3. Tapering to a point, crooked, tubular, white. V. 3. With. Cl. *pistillaris.* γ. Huds. Cl. *vermiculata.* Lightf. *Mich.* 87. 13.

Obs. Linnæus has united Cl. *herculanea* and *pistillaris* under one species, to which he has given the trivial name *pistillaris*, with this char. "Club-shaped, very simple."

elveloi'des. 9. Cl. Clustered, stalks very simple, sometimes united at the base, oblong-club-shaped, stuffed, watery yellow. (Stalks very thick, inversely pyramidal, striated. Dicks. i. 21.) Elvela *carnea.* Schæf.

— Near trees. 8. 9. *Schæf.* 164. *Jacq. misc.* ii. 12. 3.

Obs. It is fleshy when young, woody when adult, branched, compressed, somewhat funnel-shaped, truncated, the margin plaited, and curled, brown or purplish on the outside, whitish or yellowish within. Dicks.

ophioglossoi'des. 10. Cl. Club-shaped, very entire, compressed (wholly black, white within, h. about 2, d. about $\frac{1}{3}$ in the broadest part).

—— Woods, &c. 9. 10. *Bolt.* 111. *Sow.* 83.

fimbria'ta. 11. Cl. Undivided, tubular, closed and pointed, or open and fringed at the end (h. nearly $\frac{1}{2}$, d. $\frac{1}{24}$, greenish below, white above). With.

—— Amongst moss, Edgbaston. 10. ——

2. *Simple, with tubercles.*

Obs. The plants placed in this division are by many eminent Botanists referred to the genus Sphæria, but from their general resemblance to the Clavariæ I have preferred arranging them here, as Dr. Withering has done, and I am of opinion that the student will be most likely to look for them under this genus.

clava'ta. 12. Cl. Club-shaped, whitish or buffy, head oblongo-oval (h. about 1), stalk crooked, cylindrical, bulbous at the base (h. 1 to $1\frac{1}{2}$). Sphæria *clavata.* Sowerby.

—— In plantations. Cambridgesh. — *Sow.* 159.

capita'ta. 13. Cl. Stalk yellow, cylindrical, head ovate, chesnut-colour, dotted, root volvate. With. Sphæria *agariciformis.* Bolt.

—— Ramsden wood, near Halifax. 10. *Bolt.* 130.

Var. 2. Two heads upon one stalk. *Bolt.* 130. f. g.

parasi'tica. 14. Cl. Club-shaped, black, stalk cylindrical, head oblong, cylindrical, obtuse, papillous. Willd. With. Sphæria *parasitica.* Woodw.

—— On a heath near Norwich. *Willden.* 7. 17.

Obs. It is always found fixed to a Lycoperdon.

15. Cl. Club-shaped, very entire, head scaly (or granulated). Sphæria *militaris.* Bolt. Sow. *milita'ris.*

Var. 1. Head scaly, solid, orange brown, h. 4, d. 2.

— Shady woods. 10. *Schæf.* 290.

—— 2. Head granulated, orange brown, or red brown, stalk yellowish. *Bolt.* 128. *Sow.* 60.

—— 3. Head granulated, yellow, h. 1 or $1\frac{1}{2}$, d. $\frac{2}{10}$ to $\frac{3}{10}$ in the thickest part, stalk slender, about an inch high. V. 3. With.

—— Moist woods. 9. 10. *Bull.* 496. 1.

16. Cl. Mostly simple, black, stalk thicker, and covered with black hairs at the base, head acutely conical. With. Sphæria *cupressiformis.* Bolt. Woodw. *cupressifor'mis.*

—— On decayed wood. —— *Bolt.* 129. 9.

17. Cl. Stalkless, nearly of equal thickness, pale orange, whole surface studded with tubercles. With. *tuberculo'ta.*

—— On the ground, in a rookery. 8. *Schæf.* 289.

3. *Branched, without tubercles.*

18. Cl. Somewhat branched, erect, white. (Surface wrinkled, and furrowed, h. 4 to 5.) Bolt. With. *el'egans.*

—— Fir plantations. 9. *Bolt.* 115.

Obs. When undivided it is elegantly club-shaped; when divided, the branches are disposed like the horn of a rein deer, a hand, or a flower. Bolt.

19. Cl. Branched, mealy, white, branches short, truncated, crenulate. Dicks. ii. 25. *farino'sa.*

—— In woods. *Nov. act. Dan.* i. 299. 6.

Obs. The stalk is erect, somewhat angular, compressed; the whole plant is yellow, but covered with a white meal. It is found on the chrysalis of some insect. Dicks.

20. Cl. Branched, flat, membranous, laciniated, ciliate above (buffy white, stalks purplish brown). Bull. With. *laciniа'ta.*

—— On the ground amongst grass. 8. *Sow.* 158.

21. Cl. Branched, cloven or simple, somewhat acuminate, red orange (h. $\frac{1}{4}$), horny and brittle when dry. Relh. With. C. *aculeiformis.* Bull. Sibth. *cor'nea.*

— On decay. timber. 2 & 9. *Bull.* 463. 4. *Sow.* 40.

antho-ceph'ala. 22. Cl. Branched, coriaceous, cespitose, fan-shaped, lobed, rusty red (or brownish), stalk cylindrical, hairy, short (h. about ½). BULL. SIBTH. WITH.
—— Shotover plantations. 10. *Bull.* 452. 1. *Sow.* 156.

coralloi'-des. 23. Cl. Branches crowded, very much branched, unequal.
Var. 1. Yellow. Heaths. 8—10. *Bull.* 222. *Ger.* 1579. 2.
—— 2. Whitish, or quite white, solid. *Bolt.* 113. d.
—— 3. Reddish. *Schæf.* 177.
—— 4. Purple. *Bolt.* 113. 6.
—— 5. Pale olive brown. *Bolt.* 113. a.
—— 6. Grey. *Bull.* 354. See With. vol. iv. p. 366.

fastigia'-ta. 24. Cl. Branches crowded, very much branched, fastigiate, obtuse, yellow (sometimes white, or purple).
—— Woods and pastures. 8—10. *Bolt.* 112. 2.
Obs. It arises singly or in clusters from a very small root, the branches are slender at the base, thicker upwards, the summit frequently crenate, or toothed.

coria'cea. 25. Cl. Branches coral-like, depressed, striated, the ends fringed, grey changing to black brown, coriaceous, softish. BULL. SIBTH. WITH.
—— Shotover Plantat. SIBTH. 1. *Bull.* 452. 2.

muscoi'-des. 26. Cl. Branches branched (mostly dichotomous), acuminate, unequal, yellow.
—— Dry pastures. Autumn. *Sow.* 175. *Bolt.* 114.

phospho'-rea. 27. Cl. Creeping, reddish brown, branches slender at the base, summits thicker, luminous.
—— Amongst saw-dust in a wine-cellar. *Sow.* 100.

4. *Branched, with tubercles.*

digita'ta. 28. Cl. Branched, woody, black (branches slender at the base, thick and obtuse, like a finger above. Sphæria *digitata.* Bull.
—— On decayed wood. 8—11. *Sow.* 69.

hypoxy-lon. 29. Cl. Branches horn-shaped (or palmate), compressed. (Summits white, powdery, becoming black, with prominent tubercles.) Sphæria *hypoxylon.* Sow. Sph. *digitata.* Bolt.
—— On rot. wood. 1—12. *Sow.* 55. *Bolt.* 129. b. c. e. f.
Var. 2. Flat, slender, thin, anastomosing, but little hairy. WILLD. *F. Dan.* 713.
Obs. The summits of the branches of Cl. *digitata* as well as *hypoxylon* are white at first, hence there is no distinguishing mark but the obtuse apex of the former.

1215. Peziza. *Fungus* campanulate, sessile. (*Fungus* slightly concave, hemispherical, or campanulate; sessile, or stipitate.)

Obs. The illustrious author of the sexual system has been more attentive to external form, and general appearance, than to the nature of the fructification, in constructing the generic char. of the Fungi, although the latter is undoubtedly the true ground of generic distinction. A striking instance of this occurs in the genus now under consideration, for we find associated here plants possessing three different kinds of fructification. In the first place we have P. *lentifera*, which is a campanulate fungus, closed at the mouth, and containing capsules attached by pedicels to the bottom of the bell. Secondly, we find P. *punctata*, in which the seeds are collected in tubercles, imbedded in the upper surface of the plant.—Thirdly we have P. *scutellata*, in which the seeds are situated on the upper surface, but not collected in any kind of pericarp.

1. *Sessile, campanulate, closed when young, and containing pedicelled lentil-shaped capsules.*

1. P. Campanulate, lentil-bearing (pale mouse-col., smooth within, darker, roughish without, h. ½ to 1). Nidularia *campanulata*. With. *lentifera.*
—— Garden-walks. 1—12. *Bolt.* 102. 1. *Sow.* 28.

Obs. 1. When it is in its early state, the upper half of the bell is occupied by a vesicle containing a fluid, which appears to be discharged downwards, after which the upper part cracks, and the capsules are discovered connected by filiform pedicels to the bottom of the bell.—Sometimes the membrane which closes the mouth of the bell is detached all round, and thrown off. See Bolt. and Sower.

Obs. 2. The plants comprized in this division are referred by Bulliard to a genus which he has named Nidularia, of which, and Peziza, he has furnished the annexed characters.

Nidularia. *Fungus* small, membranous, coriaceous, sessile, cup-like, or inversely campanulate, containing very broad, lentil-shaped, pedicelled seeds in the bottom.

Peziza. *Fungus* concave at the top, in form of a bowl, a shield, a box, a bladder, or purse, emitting seeds by jerks, as if irritated, from the upper surface only.

2. P. Campanulate (obconical, h. ½ to 1, dark brown), villous, lentil-bearing, striated within. Huds. P. *lentifera* β. Lin. Nidularia *striata*. With. *striata.*
—— On decay. roots. 9—6. *Sow.* 29. *Bolt.* 102. 2.

læ'vis. 3. P. Campanulate, lentil-bearing, ventricose, smooth, (yellow, h. nearly $\frac{1}{2}$). Huds. Nid. *lævis.* With.
—— On decaying wood. 9—5. *Sow.* 30.

denta'ta. 4. P. Turbinate, pale buff, margin 5-toothed. (Rather woolly, smaller than a hemp-seed.) Nid. *dentata.* With.
—— On rotten twigs in clusters. 9. ——

minu'ta. 5. P. Campanulate, cup yellowish, containing globular capsules, stalk purplish. (Plant glass-shaped, about a line high.) Nid. *minuta.* With. Trichia *minuta.* Relhan. Cyathus *minutus.* Hoffm.
—— On moss. Relhan. 9. *Hoffm.* 2. 2.

2. *Sessile, seeds dispersed, or collected in tubercles imbedded in the upper surface.*

cuticulo'sa. 6. P. Glass-shaped, membranous, white, margin thin (h. not $\frac{1}{12}$). Dicks. ii. 22.
— On decayed grass. Mr. Forster. *Dicks.* 9. 11.

al'bida. 7. P. Saucer-shaped, pinky white, quite smooth. (Nearly hemispherical when young, d. $\frac{1}{4}$ to $\frac{3}{4}$.) With.
— Cellar floor, at Green-bank, near Birming. 9.

comitia'lis. 8. P. Saucer-shaped, pinky white within, greenish white without, margin crenate (d. about $\frac{1}{8}$). Batsch. Sow.
—— On decaying leaves. — *Sow.* 118. *Batsch.* 152.

argilla'cea. 9. P. More than hemispherical, depressed, buff, mouth small, entire (d. $\frac{1}{12}$ to $\frac{1}{8}$). Sow.
—— On modelling clay. —— *Sow.* 148.

Obs. The root is short, and the sides of the plant are attached to the substance on which it grows by cobweb-like fibres. See Sowerby.

papilla'ria. 10. P. Saucer-shaped, buff or brownish within, lighter without, margin ciliate, papillous (d. $\frac{1}{12}$ to $\frac{1}{8}$). Bull. Sow.
—— Rot. stumps, Hornsey wood. Aut. *Sow.* 177.

cellula'ria. 11. P. Campanulate, brown buff within, villous, reddish white without, margin spreading (d. 1 or more, h. about $\frac{1}{2}$). Sow. Cellularia *cyathiformis.* Fl. Dan.
—— On deal planks & masts. *Sow.* 91. *F. D.* 1450.

lanugino'sa. 12. P. Ovate, buff or yellow and smooth within, brown and woolly without (d. $\frac{1}{12}$ to $\frac{1}{4}$ or more). With. P. *minuta.* Dicks. ii. 24. Elv. *minuta.* F. Dan.
—— On decaying wood. 9. 10. *F. Dan.* 779. 2.

vesiculo'sa. 13. P. Depresso-spheroidal when young, becoming

hemispherical, brown yellow within, buff without (d. 2 or more). BULL. SOW.
—— On dunghills. Spring & Autumn. *Sow.* 4.

Obs. It is easily distinguished from P. *cerea* and *cochleata*, by making a perpendicular section, for in this species there is an inner and outer cup. See Sowerby.

14. P. Concave, becoming nearly flat, grey white, with a brown yellow margin. BATSCH. WITH. *pine'ti.*
—— Cones of firs. RELHAN. 9. *Batsch.* 26. 140.

15. P. Concave, dull yellow, smooth, brittle, thin. (Colour greenish to red orange, d. $\frac{1}{24}$ to $\frac{1}{12}$.) *chrysoc'oma.*
—— On rott. wood. 9. 10. *Sow.* 152. *Bull.* 376. 2.

16. P. More than hemispherical, brown within, margin flat, crenulate, white (not larger than a pin's head). RELH. *margina'ta.*
—— On decay. wood. 9. 10. *Sow.* 16. *F. D.* 779. 1.

17. P. Concave, wrinkled, ear-shaped (brown, d. 1 to 2). Tremella *auricula.* Huds. *auric'ula.*
— Rott. wood. A. 9—5. *Bull.* 427. 2. *Ger.* 1581. 1.

Var. 2. Dark olive-colour, difform. V. 2. With. *Bolt.* 107.

Obs. This forms the connecting link of Peziza and Tremella.

18. P. Turbinate, cochleate. (Thin, brittle, brown, large, concave, irregular, the sides tearing and curling in. WITH.) Helvella *cochleata.* Bolt. *cochlea'ta.*
—— On dunghills, &c. 9—7. *Sow.* 5. *Bolt.* 99.

Obs. The form of this fungus is very variable, the diameter from 1 to 2 inches, or more, the colour yellowish, brownish, dull purple, or blackish.

19. P. Concave, disk strong brown, margin elevated, pale olive, entire, thin (d. $\frac{1}{8}$ to more than $\frac{1}{4}$). BOLT. *fus'ca.*
—— On dunghills. —— *Bolt.* 109. 2.

20. P. Saucer-shaped, olive brown, dotted (d. $\frac{1}{12}$ to $\frac{1}{6}$). BULL. *stercora'ria.*
—— On cow-dung, &c. *Bull.* 376. 1. *Sow.* 18.

Obs. The seeds are collected in tubercles on the upper surface as in P. *punctata.*

21. P. Flat, margin convex, hairy (orange red within, buff without, d. $\frac{1}{8}$ to $\frac{1}{4}$). *scutella'ta.*
—— On cow-dung, &c. 10. *Sow.* 24. *Bolt.* 108.

Var. 2. Smooth at the margin. WITH. P. *fulva.* Huds.
— On cow-dung, &c. 8. 9. *Bull.* 428. 3.

bic'olor. 22. P. Saucer-shaped, disk orange coloured, whitish and woolly on the outside, sometimes stipitate. Bull. Sow. P. *scutellata.* V. 3. With.
—— On fallen branches of oak. —— *Sow.* 17.
Obs. Nearly spherical when young, gradually expanding, diam. one-twelfth.

punic'ea. 23. P. Flattish, yellow red within (wrinkled), paler on the outside, margin thick, very little raised. Batsch. With.
—— On leaves, &c. Relhan. 10. *Batsch.* 220.

coccin'ea. 24. P. Subgloboso-campanulate, scarlet within, margin entire. Huds. (Slightly concave to hemispherical, bright orange, or scarlet within, buff without, margin obtuse, undulated, d. $\frac{1}{2}$ to 3 or more.) P. *coccinea.* V. 2. With. Helvella *coccinea.* Bolt.
—— Garden-walks, &c. 10. *Sow.* 78. *Bolt.* 100.

his'pida. 25. P. Hemispherical, smooth, glaucous (or whitish) within; hispid, brown without (d. $\frac{1}{8}$ to more than 1). Huds. P. *lanuginosa.* Bull.
—— Moist hedges. 9. 10. *Schæf.* 151. *Sow.* 147.

vir'idis. 26. P. Concave, disk dark green, margin broad, black (pale green, and woolly without, d. $\frac{1}{12}$ to $\frac{1}{8}$). Bolt. With.
—— On decaying leaves, &c. 9—12. *Bolt.* 109.

cæru'lea. 27. P. Flattish, blue, margin obtuse, ciliate (black and smooth without, d. $\frac{1}{4}$). Bolt.
—— Under fir trees. 11. *Bolt.* 108.

hydnoï'des. 28. P. Depresso-spheroidal, lead-colour within, rough, pale yellow without. (Not as large as a pin-head.) Sow.
—— On bits of sticks, &c. —— *Sow.* 178.

viola'cea. 29. P. Hollow, violet-colour within, margin and outside whitish, granulated (very minute, inside rough with black dots). Bull. With.
— On the bark of a beech. Rel. 9. 10. *Bull.* 438. 4.

hepat'ica. 30. P. Dark purple (or tawny liver-colour, d. $\frac{1}{20}$), with a hollow dot in the centre. Batsch. With.
—— On the gr. in woods. Relh. Aut. *Batsch.* 138.

ciner'ea. 31. P. Grey, reflected, margin lobed, undulated, curled. (Purplish when moist, d. $\frac{1}{8}$ to $\frac{1}{4}$.) Batsch. Sibth. With.
— Decayed willows. A. 7. 8. *Sow.* 64. *Bats.* 26. 137.

polymor'pha. 32. P. Turbinate, hollow at first, afterwards flat, or convex (black), wrinkled without (h. $\frac{1}{2}$, d. $\frac{1}{4}$ or

1 above, $\frac{1}{4}$ at the base). LIGHTF. Tremella *turbinata*. Huds.
— Trunks of oaks. 9.10. *Batsch*. 50. *Schæf*. 158.

33. P. Concave, black. HUDS. *a'tra*.
—— On cow-dung. 9—5.

3. *Stipitate*.

34. P. Snowy white, funnel-shaped, villous, stalk very short (d. $\frac{1}{10}$, h. $\frac{1}{8}$). DICKS. i. 21. *niv'ea*.
—— On sticks, &c. 8. 9. *Sow*. 65.

Var. a. Stalk longer, plant without hairs.

35. P. Glass-shaped, tawny within, margin and stalk white. (Convex at first.) WITH. *calycifor'mis*.
—— Branches of trees, &c. Aut. *Batsch*. 135.

36. P. Obconical, truncated, marginate, white (becoming yellow above, margin with brown dots). WITH. *trunca'ta*.
—— On moss. Autumn. ——

37. P. Turbinate, truncated, disk (white) dotted. (Stalk grey, or blackish, $\frac{1}{2}$ to nearly 1 inch high.) Sphæria *punctata*. Bolt. Sow. *puncta'ta*.
—— On dunghills. 5—12. *Sow*. 54. *Bolt*. 127.2.

Obs. The fructification in this species, and P. *stercoraria*, is similar to that of Sphæria, consisting of tubercles filled with black seeds.

38. P. Glass-shaped (brown), angular, with branching veins on the outside (d. 1 to $2\frac{1}{2}$, stalk thick, short, furrowed, buff). *Acetab'ulum*.
—— On the ground. 9—5. *Sow*. 59. *Bull*. 485.4.

39. P. Hemispherical, brown and hispid without, stalk cylindrical. HUDS. Helvella *stipitata*. Bolt. *stipita'ta*.
—— Woods, &c. 9. 10. *Sow*. 38. *Bolt*. 96.

Obs. The whole plant is of a pale mouse-colour, the stalk is from 2 to 4 inches high, and slightly attenuated upwards, the head at first is nearly hemispherical, as it advances it becomes concave, flat, and even convex, its diam. from $\frac{1}{2}$ to more than 2 inches.

40. P. Goblet-shaped, woody, lead-col. or blackish, within, brown, hairy without, margin entire, buffy (d. $\frac{3}{8}$, h. about $\frac{1}{2}$). *melasto'ma*.
— On the root of Erica *vulgaris*. 2. 3. *Sow*. 149.

41. P. Head somewhat campanulate (hemispherical, h. and d. about $\frac{1}{2}$), brown without, paler with- *tubero'sa*.

bic'olor. 22. P. Saucer-shaped, disk orange coloured, whitish and woolly on the outside, sometimes stipitate. Bull. Sow. P. *scutellata.* V. 3. With.
—— On fallen branches of oak. —— *Sow.* 17.
Obs. Nearly spherical when young, gradually expanding, diam. one-twelfth.

punic'ea. 23. P. Flattish, yellow red within (wrinkled), paler on the outside, margin thick, very little raised. Batsch. With.
—— On leaves, &c. Relhan. 10. *Batsch.* 220.

coccin'ea. 24. P. Subgloboso-campanulate, scarlet within, margin entire. Huds. (Slightly concave to hemispherical, bright orange, or scarlet within, buff without, margin obtuse, undulated, d. $\frac{1}{2}$ to 3 or more.) P. *coccinea.* V. 2. With. Helvella *coccinea.* Bolt.
—— Garden-walks, &c. 10. *Sow.* 78. *Bolt.* 100.

his'pida. 25. P. Hemispherical, smooth, glaucous (or whitish) within; hispid, brown without (d. $\frac{1}{8}$ to more than 1). Huds. P. *lanuginosa.* Bull.
—— Moist hedges. 9. 10. *Schæf.* 151. *Sow.* 147,

vir'idis. 26. P. Concave, disk dark green, margin broad, black (pale green, and woolly without, d. $\frac{1}{12}$ to $\frac{1}{8}$). Bolt. With.
—— On decaying leaves, &c. 9—12. *Bolt.* 109.

cæru'lea. 27. P. Flattish, blue, margin obtuse, ciliate (black and smooth without, d. $\frac{1}{4}$). Bolt.
—— Under fir trees. 11. *Bolt.* 108.

hydnoï'des. 28. P. Depresso-spheroidal, lead-colour within, rough, pale yellow without. (Not as large as a pin-head.) Sow.
—— On bits of sticks, &c. —— *Sow.* 178.

viola'cea. 29. P. Hollow, violet-colour within, margin and outside whitish, granulated (very minute, inside rough with black dots). Bull. With.
— On the bark of a beech. Rel. 9. 10. *Bull.* 438. 4.

hepat'ica. 30. P. Dark purple (or tawny liver-colour, d. $\frac{1}{20}$), with a hollow dot in the centre. Batsch. With.
—— On the gr. in woods. Relh. Aut. *Batsch.* 138.

ciner'ea. 31. P. Grey, reflected, margin lobed, undulated, curled. (Purplish when moist, d. $\frac{1}{8}$ to $\frac{1}{4}$.) Batsch. Sibth. With.
— Decayed willows. A. 7. 8. *Sow.* 64. *Bats.* 26. 137.

polymor'pha. 32. P. Turbinate, hollow at first, afterwards flat, or convex (black), wrinkled without (h. $\frac{1}{2}$, d. $\frac{1}{2}$ or

1 above, $\frac{1}{4}$ at the base). LIGHTF. Tremella *turbinata*. Huds.
— Trunks of oaks. 9.10. *Batsch*. 50. *Schæf*. 158.

33. P. Concave, black. HUDS. *a'tra.*
—— On cow-dung. 9—5.

3. *Stipitate.*

34. P. Snowy white, funnel-shaped, villous, stalk very short (d. $\frac{1}{10}$, h. $\frac{1}{8}$). DICKS. i. 21. *niv'ea.*
—— On sticks, &c. 8. 9. *Sow*. 65.

Var. a. Stalk longer, plant without hairs.

35. P. Glass-shaped, tawny within, margin and stalk white. (Convex at first.) WITH. *calycifor'mis.*
—— Branches of trees, &c. Aut. *Batsch*. 135.

36. P. Obconical, truncated, marginate, white (becoming yellow above, margin with brown dots). WITH. *trunca'ta.*
—— On moss. Autumn. ——

37. P. Turbinate, truncated, disk (white) dotted. (Stalk grey, or blackish, $\frac{1}{2}$ to nearly 1 inch high.) Sphæria *punctata*. Bolt. Sow. *puncta'ta.*
—— On dunghills. 5—12. *Sow*. 54. *Bolt*. 127.2.

Obs. The fructification in this species, and P. *stercoraria*, is similar to that of Sphæria, consisting of tubercles filled with black seeds.

38. P. Glass-shaped (brown), angular, with branching veins on the outside (d. 1 to $2\frac{1}{2}$, stalk thick, short, furrowed, buff). *Acetab'ulum.*
—— On the ground. 9—5. *Sow*. 59. *Bull*. 485.4.

39. P. Hemispherical, brown and hispid without, stalk cylindrical. HUDS. Helvella *stipitata*. Bolt. *stipita'ta.*
—— Woods, &c. 9. 10. *Sow*. 38. *Bolt*. 96.

Obs. The whole plant is of a pale mouse-colour, the stalk is from 2 to 4 inches high, and slightly attenuated upwards, the head at first is nearly hemispherical, as it advances it becomes concave, flat, and even convex, its diam. from $\frac{1}{2}$ to more than 2 inches.

40. P. Goblet-shaped, woody, lead-col. or blackish, within, brown, hairy without, margin entire, buffy (d. $\frac{3}{8}$, h. about $\frac{1}{2}$). *melasto'ma.*
— On the root of Erica *vulgaris*. 2. 3. *Sow*. 149.

41. P. Head somewhat campanulate (hemispherical, h. and d. about $\frac{1}{2}$), brown without, paler with- *tubero'sa.*

in, base of the stalk attached to a blackish fungous tuberous substance. DICKS. ii. 25.
—— In woods. 4. *Sow.* 63.

Obs. The stalk is cylindrical, solid, 2 to 4 inches long, slender, flexuose, completely buried in the ground, and grows upon a Lycoperdon *Tuber*. See Sowerby.

radica'ta. 42. P. Hemispherical, brown, smooth (d. $\frac{1}{2}$ to 1, stalk slender, attenuated downwards), root simple, every where furnished with fibrils. DICKS.
—— In woods. 9. *Bull.* 485. 2.

minu'tula. 43. P. Nearly flat, brown (d. $\frac{1}{20}$); stalk brown, very short (h. not quite $\frac{1}{20}$, slender). WITH. P. *spadicea*. Batsch. Relh.
—— On decaying sticks. 11. *Batsch.* 39. 217.

cupula'ris. 44. P. More than hemispherical, pale buff, margin crenate (greyish on the outside, d. about 1), stalk very short and thick. WITH.
—— On mossy turf. 9. *Bull.* 396. 3. *Mich.* 86. 2.

citri'na. 45. P. Plant yellow, cup-shaped or saucer-shaped, stalk short or none (h. & d. $\frac{1}{12}$ to $\frac{1}{4}$). WITH.
— Rotten wood. SIBTH. 9. 11. *Sow.* 151. *Hed.* ii. 8.

undula'ta. 46. P. Funnel-shaped, disk spreading, margin sinuated, undulated, curled. *Bolt.* See Merulius *undulatus*, page 384.

lepori'na. 47. P. Orange, or brown yellow, head concave, oblique (h. $1\frac{1}{2}$ to 3), margin involute, rough on the outside, stalk short (h. $\frac{1}{4}$ to $\frac{1}{2}$), thick. FL. DAN. SOW.
—— Plantations. 9. *Sow.* 79. *F. Dan.* 1077.

epidendra. 48. P. Glass-shaped, coriaceous, carmine-col. within, whitish or flesh-col. and woolly on the outside (h. about 2, d. $\frac{1}{2}$ to 1), stalk buff, woolly, attenuated at the base (h. $\frac{1}{2}$ to 1). BULL. SIBTH. P. *coccinea*. Bolt. P. *coccinea*. Var. 1. With.
—— On decaying sticks. — *Bolt.* 104. *Sow.* 13.

tu'ba. 49. P. Yellow, margin flat (d. $\frac{1}{12}$ to $\frac{1}{8}$), stalk filiform (h. $\frac{1}{4}$ to $\frac{1}{2}$). BOLT. See Mer. *tubæformis*, p. 385.
—— On decayed plants, in moist pl. *Bolt.* 106. 1.

Obs. The whole plant is of a bright pale yellow, and exactly shaped like a trumpet.

au'rea. 50. P. See Helvella *aurea*. Page 396.

inflex'a. 51. P. Nearly hemispherical, pale buff (d. $\frac{1}{8}$ to $\frac{1}{4}$), margin ciliate, stalk incurved (h. about $\frac{1}{2}$). BOLT.
—— On putrid vegetables in woods. *Bolt.* 106. 2.

ochroleu'ca. 52. P. Funnel-shaped, coriaceous, dusky ochre-col. (d. $\frac{1}{4}$ to $\frac{1}{2}$), stalk blackish at the base (h. $\frac{1}{4}$ to $\frac{1}{2}$). BOL.
— On sticks in shady woods. *Bolt.* 105. 1. *Sow.* 115.

53. P. Glass-shaped, yellow (d. $\frac{1}{4}$), margin obtuse, erect, stalk short. (Plant $\frac{1}{4}$ inch high.) *cyathoi'des.*
—— On rotten wood. 8—4. *Ray syn.* 24. 4.

54. P. Hemispherical, coriaceous, clustered, yellow within (d. $\frac{1}{2}$ to 1), whitish, woolly, and veined without, stalk or radicle whitish, attenuated downwards. Sow. *radicula'ta.*
—— In Wanstead Garden. 10. *Sow.* 114.
Obs. Only the head is above the surface of the earth.—This species and P. *acetabulum* connect Merulius with Peziza.

55. P. Dark yellow, hemispherical, expanding (d. $\frac{1}{6}$); stalk somewhat elongated, linear, firm, distinctly inserted (h. $\frac{1}{6}$). Relh. Batsch. With. *calycu'lus.*
— On decay. sticks. 8—12. *Bull.* 416. 3. *Sow.* 116.

56. P. Slightly concave, pale yellow (d. $\frac{1}{10}$ to $\frac{1}{4}$); stalk slender, attenuated downwards, flexuose (h. $\frac{1}{4}$ to $\frac{1}{2}$). *fructig'ena.*
—— On chesnuts, &c. 10. *Sow.* 117. *Bull.* 228.

57. P. Funnel-shaped, disk spreading, sinuated, dotted. See Merulius *purpureus.* P. 385. *cornucopioi'des.*

—— Auricula'ria. *Fungus* flattish, membranous; when young, smooth above, villous underneath; when advanced, resupinate, or concave. *Seeds* on the smooth surface.

Obs. 1. The plants belonging to this genus remain attached by some one part to the substance on which they originally grew. When they adhere by one side, the situation of their surfaces is completely reversed; when they adhere by the centre, the margin is gradually elevated, they become concave like Peziæ, and the villous surface becomes the outer one.

Obs. 2. This genus is adopted rather with a view of facilitating the investigation, than from a conviction of the necessity of it. For it has been shewn above that the stalkless Agarici and Boleti undergo the same change in the situation of their surfaces, and there is nothing peculiar in the fructification. We might therefore refer the different species to Boletus, Merulius, or Helvella, according as the seed-bearing surface is found to be porous, veined, or even.

1. A. Coriaceous, imbricated, villous surface rusty red, zoned, wrinkled, margin lighter, smooth surface dull brown, papillous. Bull. With. Helvella *rubiginosa.* Dicks. See page 398. *ferrugin'ea*
— On old pales, &c. P. — *Sow.* 26. *Bolt.* 82. d.

Obs. It is from 1 to 1½ inch wide, from ½ to nearly 1 broad. The under surface appears porous when viewed in a microscope, according to Bulliard.

nicotia'na. 2. A. Thin, flexible, villous surface bright brown, margin yellow, crenate, or lobed, curled, smooth surface paler, veined. With. Helvella *nicotiana*. Bolt.

— On decayed branches. A. 2. *Sow.* 25. *Bolt.* 174.

papyri'na. 3. A. Membranous, soft, villous surface greyish white, zoned, smooth surface pitted, buff. Bulliard. With.

— On decaying trees. Mr. Robson. A. *Bull.* 402.

cortica'lis. 4. A. Circular, or oblong, concave, villous surface brownish, smooth surface whitish, soft, pitted, or papillous. Bull. With.

—— On decayed sticks. 8. *Bull.* 436. 1.

phylac'teris. 5. A. Membranous, soft, curled, or plaited at the base, yellow white changing to dark brown, biennial. Bull. Relh. With.

—— Roots of trees. B. — *Bull.* 436. 2.

Var. 2. Pliable when moist, fan-shaped, red brown with darker veins. Ag. *tristis*. Batsch. *Tab.* 121. Is it a distinct species? See With. vol. iv. p. 134.

reflex'a. 6. A. Coriaceous, villous surface yellow, with zones of various colours, smooth surface brown yellow. Bull. With. Sow. Helvella *acaulis*. Huds. H. *villosa*. Relh. Bol. *auriformis*. Bolt. *plate* 82. except d.

—— On stumps of trees. P. 1—12. *Sow.* 27.

tremelloi'des. 7. A. Gelatinoso-coriaceous, difform, villous surface grey brown, smooth surface pitted, violet-col. Bull. With. Helvella *mesenterica*. Dicks. Bolt.

— On decayed wood. 1—12. *Bull.* 290. *Bolt.* 172.

1217. Lycoper'don. *Fungus* roundish, filled with mealy *Seeds*.

Synopsis of the Subdivisions.

1. *Solid, subterraneous, without a root.*
2. *Volvate, projecting a globular capsule.*
3. *Opening at the top and emitting mealy seeds, wrapper permanent.*
4. *Opening at the top and emitting mealy seeds, stipitate.*

5. *Opening at the top and emitting mealy seeds, stalkless.*

A. Terrestrial.

B. Parasitical.

Obs. Linnæus has given only three divisions, viz.

1. *Solid, subterraneous, without a root.*
2. *Powdery, above the earth, with a root.*
3. *Parasitical, bursting into a powder.*

1. *Solid, (mostly) subterraneous, without a root.*

Obs. The Fungi arranged under this division are by Bulliard, Withering, &c. referred to the genus Tuber, which is thus characterized.

TUBER. Stalkless, fleshy, not becoming powdery, not opening at the top. WITH.

1. L. Globular, solid, muricated (warty, blackish), without a root. Tuber *cibarium*. Bull. *Tab.* 336. With. *Truffles*. High past, under gr. 9. 5. *Ger.* 1583. 8. — *Tu'ber.*

Obs. This species is of the size of a large plumb, is whitish within, changing to blackish, and contains a small quantity of brown powder in the centre. It opens with a rent. LIN.

2. L. Sessile, difform, roundish, convexo-gibbous, somewhat wrinkled, solid, whitish (l. 2 to 3, yellow within). DICKS. ii. 26. Tuber *album*. Bull. With. — *gibbo'sum.*

—— In woods, half under ground. 8. *Bull.* 404.

Var. 2. Uniform, cork-like, pitted, hairy in the pits, colour of tanned leather within, diam. about 2.——A distinct species? See With. Vol. iv. 371.

3. L. Globular, not quite solid, the centre powdery, without a root. (Tawny, coat hard, thick, granulated, purplish white within, with black seeds. MICH. *Tab.* 99. 4.) — *cervi'num.*

—— Woods. 9. 10. *Park.* 1319. 2. *right-hand fig.*

4. L. Depresso-spherical, brown, reticulated, very firm, blue black within (d. 1 to 2, root short). WITH. — *sol'idum.*

—— Under an oak, at Edgb. 8. *Schæff.* 188. 7.

5. L. Roundish, nearly solid, with a root, when mature filled with a meal-bearing down. DICKS. i. 25. SCHÆF. L. *cervinum*. Bolt. Tuber *radicatum*. With. — *spadic'eum.*

—— Heaths. 4—9. *Bolt.* 116. *Schæf.* 188. 1—5.

Obs. It is sometimes found an inch in diam. under ground, with a few capillary fibres upon its surface, it is then brown and firm, sometimes papillous or warty, sometimes furrowed and reticulated. When it appears above the surface, the lowest fibres form themselves into a root, and the colour of the outside is brown, yellow, green, or reddish. The inside from white changes to purple, with a net-work of black veins, and at last becomes quite black. See Bolton.

min'imum. 6. L. Globoso-difform, solid, gregarious, without root. See Sphæria *Brassicæ*.

2. *Volvate, projecting a globular capsule.*

Obs. The species belonging to this division are referred to the genus Carpobolus by Micheli and Haenke.

Carpob'olus. 7. L. Wrapper many-cleft (yellow, tomentous), fruit globular, consisting of united seeds. (Seeds contained in a transparent capsule.)

—— On decaying wood. 8—10. *Sow.* 22.

hydroph'orum. 8. L. Wrapper with an entire mouth, rusty red, capsule colourless, pellucid. Peziza *hydrophora*. Bull.

—— On rotten wood. 8. 9. *Sow.* 23. *Bull.* 410. 2.

3. *Opening at the top and emitting powdery seeds, wrapper permanent.*

colifor'me. 9. L. Wrapper many-cleft, spreading, head depresso-spherical (brownish), stalks and mouths numerous. Dicks. i. 24.

—— Sandy banks, &c. 8. 9. *Dicks.* 3. 4.

stella'tum. 10. L. Wrapper many-cleft, spreading, head smooth, mouth acuminate, plaited (d. about 1).

—— Hedge-banks, &c. 9. 10. 4. *Bolt.* 179.

Obs. The wrapper is irregularly split into an uncertain number of rays, the head nearly globular, and supported on a short peduncle, the mouth surrounded with ciliæ, converging into a cone, and the whole plant of a dirty white generally, but the head sometimes tinged slightly with grey.—See an excellent paper by Woodward, in Lin. Tr. ii. 55.

Var. 2. Smaller, dark brown, head flatted, mouth long, acuminate, teeth longer. With. *Bryant Lycop.* 19.

fornica'tum. 10. L. Wrapper (double) 4-cleft, arched, head smooth, mouth obtuse, ciliate. Huds.

—— Meadows and pastures. 8—1. *Schæf.* 183.

Obs. The wrapper 4-cleft, and remaining in the ground when opened. The head globular, stipitate, and elevated upon

four arched rays, resting on the tips of the divisions of the wrapper; the mouth open, and surrounded with cilia, forming a cylinder; the fresh plant white, but soon changing to a dark brown. Woodw, Ibid.

12. L. Wrapper many-cleft, spreading, segm. equal (5—7), head depresso-spherical, sessile, mouth acuminate. WOODWARD. Lin. Tran. ii. 58. SCHMID. *recol'ligens.*

—— Plantations, &c. Spr. & Autumn. *Sow.* 80.

13. L. Wrapper with many ragged clefts, head cylindrical, sessile (brown, h. 3, d, $1\frac{1}{2}$), WITH. *cylin'dricum.*

—— Fir plantations. Mr. WATT. ——

14. L. Wrapper many-cleft, spreading, head globular, stalk long, slender, cylindrical. WITH. Sphærocarpus *floriformis.* Bull. *floriformi.*

—— On moss, in plantat. RELH. 10. *Bull.* 371.

Obs. It is coriaceous and straw-coloured; the capsule splits into 5 or 6 petaloid segments, and discovers a woolly matter filled with seeds, and a pyriform receptacle. See Bulliard.

15. L. Volvate, stipitate; head deflected, campanulate, powdery, calyptred above, smooth, free underneath. DICKS. i. 24. WOODW. WITH. Phallus *campanulatus.* With. ed. 2. *Phalloi'des.*

—— On sandy banks. 8. *Phil. Tr.* vol. 74. 16.

Obs. The wrapper is ovate, buried 7 or 8 inches deep in the earth. The stalk ragged, woody, hollow, about a foot high. The Calyptre is a portion of the torn wrapper.—It is a connecting link of Phallus and Lycoperdon. See Phil. Trans., Dicks. Fasc. i., and Withering.

4. *Opening at the top and emitting mealy seeds, stipitate.*

16. L. Plant brown white, stalk solid, cylindrical, head globular, rather hollowed underneath. WILLDEN. GMELIN. WITH. L. *gossypinum.* Bolt. See Lichen *Byssoides*, page 287. *equi'num.*

17. L. Stalk long (hollow), head globular, smooth ($\frac{1}{4}$ to $\frac{1}{2}$ inch in diam.), mouth cylindrical, very entire (pale ochre-colour). *Ratsch.* 167. *pedunculatum.*

— Pastures. 8—10. *Bull.* 294. *Tourn.* 331. E.F.

18. L. Stalk very short, root large, head depresso-spherical, olive brown, pitted (d. 1 to $1\frac{1}{2}$), seeds brown. BULL. WITH. *verruco'sum.*

—— Edgbaston park. 8. BULL. 24.

19. L. Stalk cylindrical, whitish (h. $\frac{1}{20}$), head nearly globular, tawny, brittle (size of a pin- *parasi'ticum.*

head), seeds black. Wood. See With. vol. iv. p. 379.

—— In clusters upon grass, &c. near Leeds. 11.12.

aurantia'cum. 20. L. Stalk short, head depresso-spherical (greenish or orange yellow), wrinkled at the base, opening with obtusely emarginate segments. With.

— On a common near Derby. Relh. 1. *Bull.* 270.

5. *Opening at the top and emitting mealy seeds, stalkless.*

A. Terrestrial.

Bovis'ta. 21. L. Roundish (difform, white or greyish when young, becoming brown) opening with a rent (seeds dark-coloured). L. *Proteus.* Bull. With. Sibth.

Obs. This fungus varies extremely in size, figure, colour, and the state of its surface. The best distinctive mark is its being surrounded with three coats; the first of which is inseparably connected with the substance of the plant; the second is a smooth, coriaceous coat; and the third is a soft cuticle, which is easily rubbed off. It is in the third or outermost coat that the varieties observed on the surface reside. See Bolton.

Var. 1. *great.* δ. Huds. Globular, sessile very large.

Puckfist. Pastures. 8. *Bull.* 447. *Park.* 1323. 32.

—— 2. *onion-shaped.* Var. 5. Lightf. Depresso-spherical, d. $\frac{3}{4}$ to $1\frac{1}{4}$.

— Common. —— *Bull.* 435. 2. *Bolt.* 117. c. e.

—— 3. *ovate.* The small end downwards, as large as a pigeon's egg.

— On old turf. — *Bull.* 435. 3. and 475.

—— 4. *pyriform.* γ. & ζ. Huds. Bordering upon the preceding and succeeding var. *Bull.* 32. *Bolt.* 117. d.

—— 5. *winter.* α. Huds. Plaited at the bottom, turbinate, sessile or stipitate.

— Pastures. 9—3. *Bull.* 72. *Bolt.* 117. a.

—— 6. *pitted.* Lower stalk-like part irregularly pitted. —— *Bull.* 52. *Bolt.* 117. f.

—— 7. *rough.* ε. Huds. Echinate, attenuated downwards so as to form a stalk. *Bull.* 340.

—— 8. *pestle-shaped.* η. Huds. Stalk attenuated upwards.

— Woods. 6—11. *Bull.* 450. 2. *Bolt.* 117. g.

Var. 9. *flat-topped*. Rather crooked, nearly cylindrical, flat at the top, edge thin. — 5. *Bolt.* 117. b.

—— 10. Stalk very thick, pileus convex, the whole plant set with fine pencils of soft hairs, brown yellow. STACKH.

Obs. For the above varieties see Bulliard and Withering.

22. L. Spherical, snowy white, when decaying black, coats only two, outer downy, inner coriaceous (d. 2), seeds black. BOLT. *globo'sum.*

—— In meadows or pastures. — *Bolt.* 118.

23. L. Globular (or semi-globular), coriaceous (dirty white, or brown, d. 1½ to 2), when open the coats turning in, half buried in the earth. (Seeds brown dirt-colour.) BATSCH. WITH. *defos'sum.*

—— Found by Mr. STACKH. — *Batsch.* 229.

24. L. Nearly globular, flexible, purplish lead-col., red within, changing to brown. BULL. *Tab.* 192. 4. *lower fig. on the right-hand.* WITH. *ardosia'ceum.*

—— In Norfolk, on sandy heaths. *Batsch.* 166.

B. Parasitical.

25. L. Depresso-spherical, solitary, coat thin, whitish, mouth many-cleft, segm. irregular, seeds fuscous. Æcidium *fuscum*. Relhan. *inna'tum.*

—— On the leaves, &c. of plants. Spr. *Sow.* 53.

Obs. 1. This and the following species are referred to a new genus named Æcidium, of which we have the subjoined char. from Persoon's Tent. Disp. Meth. Fung.

ÆCIDIUM. F. Cases manifest, membranous, filled with a mealy powder, bursting at the top, mouth toothed, parasitical on leaves.

Obs. 2. This fungus has been found on the under-side of the leaves and petals of Anemone *nemorosa*, and on the leaves of Adoxa *moschatellina*, Carduus *arvensis*, and Betonica *officinalis*. Is Lycoperdon *Anemones* of Dr. Pulteney a variety of this, with white seeds? See Lin. Tr. Vol. ii. p. 311.

27. L. Clustered, parasitical (tawny, difform), mouth many-cleft, torn, powder tawny. Æcidium *fulvum*. Sibth. *epiphyl'lum.*

— Leaves of Tussil. *Petasites*. 8—5. *Schæf.* 193.

27. L. Roundish, gregarious, smooth, mouth perforated, brown. See Trichia *turbinata*. *lu'teum.*

28. L. Parasitical, sessile, roundish, outer coat tawny, deciduous, powder black, compact. See Sphæria *lycoperdoides*. *variolo'sum.*

gossypi'num. 29. L. Pyriform, white, becoming brown, cottony, seeds brown (d. $\frac{1}{16}$ to $\frac{1}{10}$). Bolt. With.

—— On decayed wood. —— *Bull.* 435. 1.

pisifor'me. 30. L. Globular, rough (warty, tawny, size of a pea, 1-coated), mouth perforated.

—— On decaying trunks of trees. *Jacq. mis.* i. 7.

ciner'eum. 31. L. Globular, rough and branny, blue grey (size of a pin-head), seeds like sand, large, black, intermixed with white flexuose fibres. Batsch. With.

—— On rotten leaves. Relhan. 8. *Batsch.* 169.

epiden'drum 32. L. (Mostly globular.) Case and powder purple. L. *epiphyllum.* Huds.

—— On rotten wood. 8—10. *Bolt.* 119. 1. *Sow.* 52.

Obs. It is soft and pulpy when young, the form varies from round to oblong, the colour from pink to vermilion, orange, purplish, or mouse-colour. It is the external soft coat, that is red, which falling off as the plant advances leaves the inner mouse-coloured or purplish one exposed. The powder is of a pale pink-colour. See Bolton.

radia'tum. 33. L. Obovate (not $\frac{1}{4}$ of an inch in diam.) brown, root villous, radiate (spreading about an inch in every direction), whitish. Sow.

—— On a plastered wall. —— *Sow.* 145.

Obs. On cutting through this curious little fungus, a ball is discovered in the centre, nearly solid, and tomentous. In structure it approaches L. *phalloides.* See Sowerby.

acarifor'me. 34. L. Obovate, scarcely tomentous, brown, root membranous, circular, yellowish, lobed, segments laciniated (spreading about $\frac{1}{8}$ of an inch in every direction). Sow.

—— Bark of trees. Mr. B. M. Forst. *Sow.* 146.

Obs. It is not yet fully determined to be a Lycoperdon.

vespa'rium. 35. L. Cylindrical, clustered, rose red, becoming tawny red. Batsch. Sphærocarpus *fragiformis.* Bull. Trichia *fragiformis.* With.

—— On decayed wood. Spring. *Batsch.* 172.

Obs. This species is only one-eighth of an inch high, and one-sixteenth in diam., it opens at the top and discharges its seeds, which with the connecting fibres are of a tawny saffron-colour. Batsch.

frag'ile. 36. L. Parasitical, mostly sessile, obovate, brown (clustered), coat shining, brittle, powder black, with soft hairs intermixed. Dicks.

—— On grass, &c. Autumn. *Sow.* 136. *Dicks.* 3. 5.

Obs. In the morning these fungi have been observed in one mass like cream; this soon becomes yellow, and begins to

separate; it grows harder, and the distinct plants are formed towards evening. On the following day they seem perfect, consisting of a chesnut brown brittle case, full of dark powder, on a kind of loose woolly receptacle. See Sowerby.

1213: CLATH'RUS. *Fungus* roundish, latticed. (*F.* roundish, or cylindrical, latticed. *Seeds* escaping through every part of the surface.)

1. C. Stipitate, head oblong, with a longitudinal axis. Trichia *nuda*. With. *nu'dus.*
—— Stumps of trees. 5—10. *Bolt.*93.1. *Sow.*50.

Obs. The stalk is black, capillary, from 1 to more than 2 lines in length, and is extended through the capsule or head. The Capsule is cylindrical, $\frac{1}{4}$ to $\frac{1}{2}$ inch in length, at first white, and cream-like in its consistence, afterwards becoming of a tawny brown, and covered by a fine membrane, the fibres of which separate so that the seeds escape through every part of the surface.

2. C. Stipitate, head oblong, volvate. See Trichia *denudata*. *denuda'tus.*

3. C. Stipitate, head globular, gland oval. See Trichia *recutita*. *recuti'tus.*

4. C. Stipitate, green, head globular, mealy. HUDS. See Mucor *furfuraceus*. *vires'cens.*

5. C. Stipitate, stalk and head villous, olive-col. *oliva'ceus.*
—— On putrid weeds. —— *Bolt.*94. 2.

Obs. This, like C. *nudus*, has no firm compact case. It connects Clathrus with Mucor. See Bolton.

—— TRICH'IA. *Fungus* stipitate, or stalkless. *Capsule* roundish, mostly opening horizontally. *Seeds* entangled in wool-like fibres, expanding elastically, attached to the bottom of the capsule.

1. *Stipitate.*

1. T. Stalk very short ($\frac{1}{12}$), caps. oblongo-ovate, or round, reddish or purplish, cupped at the base, wool red. WITH. Clathrus *denudatus*. Lin. Huds. See above. *denuda'ta.*
— On decay. wood. 6—10. *Sow.* 49. *Bolt.*93. 2.

Obs. It is at first white, nearly sessile, and of the consistence of cream. It opens horizontally near the base.

2. T. Stalk short, capsule globular, opening hori- *ru'fa.*

zontally in the middle, red. With. Lycoperdon *rufum*. Dicks.

— On rot. wood. 7—8. *Bull.* 368. 1. *Schm.* 24. 1—8.

ful'va. 3. T. Stalk very short, whitish, capsule scarlet, becoming dark brown, globular, opening horizontally near the base (h. $\frac{1}{10}$), wool tawny. With. Mucor *fulvus*. Lin. Clath. *fulvus*. Huds. Bolt.

—— On rotten wood. 5—10. *Bolt.* 93. 3.

al'ba. 4. T. Stalk black, caps. globular, white changing to deep purple, shining. With. Sphærocarpus *albus*. Bull.

—— On decayed sticks. — *Bull.* 407. 3. f. D.

fla'va. 5. T. Stalk black, capsule globular, white changing to brown yellow, opening below the middle, wool yellow. With. Clathrus *flavus*. Huds. Bolt. Mucor *sphærocephalus*. Lin.

—— On rotten wood. 6—10. *Bolt.* 93. 4.

Obs. It is so nearly allied to T. *alba*, that it is highly probable it is only a variety of it. After the discharge of the seeds the head is black and spherical. in which state Bolton conconsiders it as Mucor *sphærocephalus* of Linnæus.

pyrifor'mis. 6. T. Stalk short, capsule (size of a pin-head) pyriform, yellow, varnished, wool and seeds yellow. Sibth. With.

—— Decayed wood. Sibth. 10. *Bull.* 417. 2.

nu'tans. 7. T. Stalk very short, caps. very long, ovate, yellowish, opening near the base, wool yellow. Dicks. With.

—— On rotten wood. 7. *Bull.* 502. 3.

Obs. When the capsule opens, the wool appears of a cylindrical form, is about $\frac{1}{4}$ of an inch in height, and soon becomes nodding, or decumbent.

globulif'era. 8. T. Stalk brown, thicker at the base, capsule globular, ash-colour, or brown (size of a poppy-seed), wool livid. With. Clathrus *cinereus*. Huds. Cl. *sphærocephalus*. Bolt. Relh.

—— In the cracks of dry wood. 1—12. *Bolt.* 94. 1.

Obs. Mucor *sphærocephalus* Lin. is made a synonym by With.

recuti'ta. 9. T. Stipitate, caps. globular, opening in the middle, wool ovate, black. With. Clathrus *recutitus*. Lin. Cl. *ater*. Huds.

—— On rotten wood. 5—12. *Batsch.* 232.

hemisphæ'rica. 10. T. Stalk conical, capsule convex above, flat underneath, whitish, opening in the middle (d. about $\frac{1}{12}$, fibres and seeds brownish). Reticularia *hemisphærica*. Bull. With.

—— On dead leaves, &c. —— *Sow.* 12.

2. *Stalkless.*

11. T. Stalkless, clustered, capsules cylindrical, tawny red. With. See Lycoperdon *vesparium*, page 416. *fragiformis.*

12. T. Stalkless, clustered, capsule turbinate, dusky yellow, opening near the top, wool yellowish. With. Clathrus *turbinatus*. Huds. Bolt. Lycoperdon *luteum*. Syst. veg. See p. 415. *turbina'ta.*

—— On rotten wood. 8—4. *Sow.* 85. *Bolt.* 94. 3.

Obs. It is scarcely larger than a poppy-seed, and is of short duration. For in the morning it has been found whitish and of the consistence of cream; at noon with a yellow coat upon it; which in the evening has begun to separate, and permit the seeds to escape, and next morning only the empty cup-like base has remained. It is the connecting link of Trichia and Lycoperdon. See Bolton and Sowerby. ——

13. T. Stalkless, turbinate, brown black, wool yellowish. Sibth. With. *fusco-a'tra.*

—— On decayed wood. Sibth. 10. *Bull.* 417. 5.

Obs. Trichia *fulva*, *alba*, *pyriformis*, *globulifera*, *fragiformis*, and *fusco-atra*, are referred to Sphærocarpus by Bulliard, which he thus defines.

Sphærocarpus. *Fungus* small, fleshy, or coriaceous, sessile, or pedicelled, clustered, attached to a common membranous base; pericarp globular, turbinate, or cylindrical, at first full, firm, and opake; afterwards irregularly torn in every part; seeds emitted from a hair-like net.

1218. Mu'cor. *Fungus* with stipitate vesicles. (*F.* stipitate, or sessile. *Seeds* mostly in transparent vesicles or capsules.)

1. *Perennial, stipitate* (urceolatus, aurantius).

1. M. Stalk black, setaceous, hair soft, brown. *Em'bolus.*

—— On wood. P. 1—12. *Hall. en.* 1. 1. *hist.* 48. 1.

2. M. Stalk filiform, black, head globular, ash-col. See Trichia *flava* & Tr. *globulifera*, p. 418. *sphæroceph'alus.*

3. M. Stalk subulate, black, head lentil-shaped, ash-coloured. Trichia *lichenoides*. Sibthorpe. With. See Lichen *sphærocephalus*, p. 286. *lichenoi'des.*

4. M. Pale, pileus tawny. See Trichia *fulva*, p. 418. *ful'vus.*

5. M. Green, leaves branny, stalk filiform, head globular. Clathrus *virescens*. Huds. Trich. *furfuracea*. With. Lich. *capitatus*. Schr. spic. *furfura'ceus.*

— On the ground in shady pl. 5—10. *Batsc.* 178.

Obs. It is difficult to determine to what genus this should be referred; but from the state, in which I have seen it, I am not inclined to make it a Trichia. If the mealy appearance upon its surface be owing to the seeds being protruded through small apertures, occasioned by a separation of the fibres, which compose the capsule, the genus Clathrus seems to have a good claim to it.—Perhaps from the leafy ground which accompanies it, it may most properly be referred to Lichen.

2. *Fugacious, stipitate.*

aquo'sus. 6. M. Stalk long, pellucid, caps. globular, watery, seeds roundish. DICKS. iii. 23.
—— On putrefying paste. DICKS. *Pet. gaz.* 51.7.

Muce'do. 7. M. (Stalk simple, grey.) Capsule globular (very small, at first pellucid and white, afterwards grey, opake).
—— On putrid fruits, &c. 1—12. *Bolt.* 132. 1.

Obs. It bursts at the top, and emits its seeds like a Lycoperdon. See Bolton.

glau'cus. 8. M. Heads roundish, clustered.
—— On rotten apples, &c. 1—12. *F. Dan.* 777.2.

ro'ridus. 9. M. Stalk capillary (white pellucid, h. $\frac{1}{3}$), head spherical, like a dew-drop, with a black dot on the top. RELH. RAY syn. 13. 13. Agaricus *tenellus.* HUDS.
— On horse-dung. 8—10. *Bull.* 480. 1. *Bolt.* 132. 4.

urceola'tus. 10. M. Stalk ventricose above, yellowish, afterwards like a dew-drop; head roundish, elastic, black (or dark olive). DICKS. i. 25.
—— On horse-dung. 8. *F. Dan.* 1080. *Bolt.* 133. 1.

Obs This plant is about $\frac{1}{8}$ of an inch in height, and has the property of projecting the seed vessel in the same manner as Lycop. *Carpobolus.* See With. vol. iv. p. 401.

cæspitosus. 11. M. Stalk branched, spikes ternate.
—— On putrefying vegetab. 1—12. *Bolt.* 132. 2.

Obs. This fungus is about one-third of an inch in height, the spikes are ternate, and resemble strings of pellucid beads, which when mature burst, and discharge oval seeds. BOLT.

crusta'ceus. 12. M. Stipitate, spikes digitate, (Stalk undivided, fructifications radiating, terminating. WITH.)
Var. 1. Rays of fructifications few. *Bull.* 504. 11. *Mich.* 91. 3.
—— 2. Rays of fructif. crowded. *Bull.* 504. 10. *Mich.* 91. 2.
— On corrupted vegetables. 1—12.

botry'tis. 13. M. Stalk branched, fructif. globular, in termina-

ting bunches (like grapes, plant about $\frac{1}{4}$ of an inch in height). Bolt.

— On a decaying Boletus *versicolor*. *Bolt*. 132. 3.

14. M. Stalk simple or branched, heads nearly spherical, granulated, brown. Sphæria *entomorrhiza*. *Dicks*. i. 22. With. *entomorrhi'zus*.

—— On dead Larvæ of insects. Aut. *Dicks*. 3. 3.

Obs. The stalk is somewhat compressed, two inches or more in height. Dr. Withering observes that its habit speaks it to be a Mucor, and I have referred it to this genus.

15. M. Stalks very short, heads or seeds roundish, white, yellow, or scarlet, crust rather coriaceous. Bull. Relh. With. *ca'seus*.

—— On old cheese, &c. —— *Bull*. 504. 2.

16. M. Stalks branched, creeping, crustaceous, seeds few, roundish, scattered, very minute, orange-coloured. Bull. With. *auran'tius*.

—— On willows. Relh. — 10. *Bull*. 504. 5.

17. M. Cespitose, extremely fine, yellow, stalks erect, seeds very numerous, roundish, whitish gold colour. Bull. Sibth. With. *chrysosper'mus*.

—— On Boleti in shady pl. 8—10. *Bull*. 476. 4.

18. M. Growing in spots, white or green; stalks very slender, branched, interwoven; seeds very minute, roundish, scattered. Bull. Relh. With. *lignifrac'tus*.

—— On the bark of trees. 1—12. *Bull*. 504. 6.

19. M. Spreading, white, consisting of extremely fine woolly filaments supporting seeds. With. *argen'teus*.

—— On the smaller stipitate Boleti. 8. 9. —

20. M. Setaceous, seeds at the root. *lepro'sus*.

— Arched cellars & caverns. 9—4. *Mich*. 91. 5.

3. *Fugacious, sessile.*

21. M. White, heads brown, sessile. *Erysi'phe*.

—— On decaying leaves, 8. 9. *Bull*. 504. 12.

22. M. Crustaceous, blackish, caps. sessile, on the upper and under surface of leaves. Bull. Relh. With. *granulo'sus*.

— Leaves of the sycamore. Relh. *Bull*. 504. 13.

23. M. Unctuous, yellow. See Reticularia *septica*. *sep'ticus*.

—— Reticula'ria. *Fungus* of an irregular form, at first soft, becoming friable, and opening indiscriminately. *Seeds* adhering to fibres, or in membranous cells.

sinuo'sa. 1. R. Whitish, oblong, serpentine, opening on the upper side through its whole length. BULL.
—— On decayed herbage. *Bull.* 446. 3. *Sow.* 6.

Obs. It is from $\frac{1}{8}$ to about $\frac{3}{4}$ of an inch long, the smaller plants are of various forms, the longer ones send off short lateral processes, or branches.

hemisphæ'rica. 2. R. Head convex, flat underneath, whitish, stalk conical. WITH. See Trichia *hemisphæricas*, page 418.

carno'sa. 3. R. Clustered, fleshy, heads nearly ovate, cushion-like, sessile, white, tomentous. (Larger than a pea, filled with a black substance marbled with white.) BULL. WITH. Mucor *carnosus*. Dicks. iii. 23.
—— On decayed wood. 9. *Bull.* 424. 1.

Lycoper'don. 4. R. Somewhat globular (d. $\frac{1}{2}$ to 1), the base flat, brown changing to white, emitting brown seeds adhering to fibres. WITH. Lycoperdon *fuscum*. Huds. Mucor *lycogalus*. Bolt.
—— On decaying wood. 9—5. *Bolt.* 133. 2.
Var. 2. Generally ovate, silvery grey changing to brown, powdery and brown within. WITH. *Bull.* 446. 4. *Schæf.* 195. 3.

Obs. This variety only becomes brown in consequence of the loss of its outer coat, which is silvery grey. See Withering.

hydnioi'des. 5. R. White, cobweb-like. (When magnified, appearing beset with crooked spiculæ.) WITH.
—— On leaves of Veronica *Chamædrys*. STACK.

sep'tica. 6. R. Yellowish, viscid, slimy, difform, smooth. WITH. Mucor *septicus*. LINN. See page 421.
—— On rotten wood. 9—5. *Schæff.* 194. *F. D.* 778.
Var. 2. Whitish. R. *hortensis*. Bull. *Tab.* 424. 2.
—— 3. Reddish. *Schæff.* 195.

ova'ta. 7. R. Stalkless, ovate, mucilaginous, hairy, yellowish; gills cellular, vanishing, turning to dust, blackish; seeds black, adhering to threads. SCHÆF. WITH. Mucor *septicus*. Lightf. Bolt.
— On grass, &c. in woods. 8. *Schæf.* 192. *Bolt.* 134.
Var. 2. White, frothy (like a custard), large, turning to a black powder. R. *alba*. BULL. Nearly allied to the Lycoperdons. WOODW. See WITH. vol. iv. p. 387.
—— On stumps of trees, &c. —— *Bull.* 336.

seg'etum. 8. R. Brown black, parasitical, fibrous within. (Caps. minute, ovate, sessile, at first white; bursting and discharging a brown black powder mixed

with woolly fibres.) BULL. SIBTH. WITH. See Uredo *segetum*.

—— SPHÆ'RIA. *Caps.* roundish, hard, sessile, or imbedded, filled with a jelly when young, with a blackish powder when old, generally opening at the top.

Obs. 1. Although the tubercled Clavariæ, constituting the second and fourth divisions of that genus in my arrangement, are referred by many respectable botanists to Sphæria, and although I acknowledge an agreement in the structure of the fructifications; yet I prefer continuing them under the former genus with Dr. Withering, because the young botanist is most likely to look for them in that place, and because the characters of the new genera of Fungi are not yet sufficiently established, to induce us to adopt them in preference to the Linnean genera. See Withering, vol. iv. page 388.

Obs. 2. By *Simple Sphæriæ* are here understood those, which are not contained in a fleshy or woody fungus. By *Compound Sphæriæ* are meant those, which are lodged in a sessile fleshy, or woody fungus.

1. *Simple, caps. (or cases) naked, solitary, or clustered.*

1. S. Naked, turbinate, when young glaucous without, white within, becoming black. BOLT. Lichen *cæruleo-nigricans*. Relhan. *glau'ca.*
— Braham Moor near Leeds. 11.12. *Bolt.* 120.2.

Obs. When old, the top sinks and becomes concave, in which state the capsules have been mistaken for shields.

2. S. Naked, difform, black, flesh white. (Spherules single or confluent, size of a mustard-seed to that of a pea.) DICKS. i. 23. Lycoperdon *minimum*. Syst. veg. *Bras'sicæ.*
—— On rotten cabbage-leaves, &c. *Bolt.* 119.2.

Obs. They are at first white, gelatinous, transparent, small; they then become reddish brown, and when full grown they are the size of a lentil, and become quite black. The root is a single white filament. See Bolton.

3. S. Simple, globular, green (pale brown when dry, size of a white mustard seed), coat granulated, granules brown. BOLT. *vir'idis.*
—— On decaying twigs, &c. — *Bolt.* 121. 2.

4. S. Simple, ovate, blood-col., perforated at the top, inside and seeds white. BOLT. Hypoxylon *Phæniceum*. Bull. *sanguin'ea.*
—— On decayed wood. 6. *Bolt.* 121. 1.

Obs. They are about the size of a poppy-seed; great numbers grow near together, but they do not adhere to one another.

mo'ri. 5. S. Simple, clustered (not confluent), scarlet, very small. WEIG. Obs. 45. DICKS. BOLT.
— Decay. bark of trees. 1. 2. *Bolt.* 120. *Weig.* 2. 11.

grega'ria. 6. S. Simple (very minute), in irregular clusters, red-lead-coloured, crust whitish, tender. WEIG. DICKS.
—— On the bark of trees. 2—4. *Weig.* 2. 10. a.

fragifor'mis. 7. S. Red (rust-coloured), strawberry-like. (When old black, hard.) HALLER. DICKS.
— On rotten wood. 9. *Hall. en.* 2. 10. *hist.* 47. 10.

mammo'sa. 8. S. Hemispherical, never confluent, mostly solitary, olive-green, hairy. WITH. S. *mammiformis.* Relh.
—— Rotten wood. 9. *F. Dan.* 1079.

cortica'lis. 9. S. Cup-shaped, black, seeds numerous, shining, globular. RELH. SIBTH. WITH.
—— On the bark of elms. RELHAN. *Bull.* 492. 2.

byssa'cea. 10. S. Simple, very minute, solitary, black, crust snowy, powdery. WEIG. DICKS.
—— On the bark of oaks. —— *Weig.* 2. 9.

Obs. The spherules are scattered, very numerous, and so small as to be like black dots. DICKS. i. 23.

stig'ma. 11. S. Black dots in clusters on the bark. HOFFM. SIBTH.
— On fallen branches. *Hoffm. veg. crypt. fasc.* 1. 7.

scrip'ta. 12. S. Black, rough, granulated, opening at the top, crust white, with irregular black streaks. WITH. See Lichen *scriptus*, page 284.
—— On the bark of trees. —— *Dill.* 18. 3.

Obs. Mr. Griffith is of opinion that the Lichen *scriptus* is only the ground of this plant. The tubercles are at first of the size of a small pin-head, bordered with the white crust, but as they increase, they lose the white border, and become granulated. These granules open at the top, and after some time there is only left a black cup sunk in the crust. See Withering, vol. iv. p. 395. I much doubt however whether these tubercles are not the proper fructific. of the Lichen, and am of opinion that all the Sphæriæ with a crustaceous ground ought to be referred to Lichen. See Lichen *sphærocephalus*, page 286.

acu'ta. 13. S. Solitary, conical, or cruet-shaped, very minute, black. HOFFM. *Tab.* 5. 2. WITH.
— Decay. stems of nettles. RELH. 2—4. *Sow.* 19.

14. S. Clustered, but distinct, spherical, black, shining (resembling gun-powder). RELH. S. *bombardica*. Bolt. Lycoperdon *aggregatum*. Huds. L. *nigrum*. Light. *Plate 31.* *aggrega'ta.*

—— On stumps of trees. 10—9. *Bolt.* 122. 2.

15. S. Compound, solitary, sometimes stipitate, nearly globular, purple (or vermillion above, yellow below, and *v. v.*) somewhat gelatinous. WEIGEL. WITH. See Tremella *purpurea*, page 310. *Tremelloi'des.*

2. *Simple, caps. (spherules, or cases) imbedded or immersed, distinct or cohering.*

16. S. Black (blue grey within), depresso-spheroidal or ovate, imbedded in the wood; tube single, conical, pushing through the bark. Sow. Hypoxylon *nummularium*. Bull. *decortica'ta.*

—— On decaying sticks in Kensing. g. *Sow.* 137.

17. S. Blackish, depresso-spheroidal, discharging a waxy tendril-like substance. HOFFM. Sow. Hypoxylon *cirrhatum*. BULL. *cirrha'ta.*

—— On sticks in Hornsey wood. *Sow.* 138.

Obs. This species is not very properly referred to Sphæria.

18. S. Simple, mostly solitary, nearly immersed, shining, black, crust spathaceous, chinky, olive-whitish. WEIG. DICKS. 1. 23. *nit'ida.*

—— On the bark of trees. *Weig.* 2. 14.

Obs. See the observation on Sph. *scripta*.

19. S. Solitary, immersed, ovate, black, tubes several, capillary, diverging, terminating. BATSCH. *Tab.* 183. *tentacula'ta.*

— On rotten wood, Kensington gard. *Sow.* 120.

Obs. The lower ovate part is completely immersed in the remains of the bark, or in the wood. The cylindrical mouths project so as to be visible to the naked eye, and appear like little bundles of hairs. See Sowerby.

20. S. Clustered, ovato-oblong, black, the apertures ciliate. RELH. WITH. *corona'ta.*

—— On decayed branches. 9. 10. *Hoffm.* 5. 4. 5.

Obs. They are crowned by the styles, which project through the outer coat, are thickest at the end, and perforated. HOFFM.

21. S. Distinct, convex, shining, black, partly imbedded in an uniform brown black ground. WITH. *ni'gra.*

—— On the bark of oaks, at Enville, Staff. 7.

3. *Compound, caps. several, imbedded in one fleshy or woody substance.*

depres'sa. 22. S. Aggregate, black, shining (oblongo-oval, surface granulated). Bolt.

—— Bark of decay. branches. 1—12. *Bolt.* 122. 1.

Obs. The substance of the common cover is hard, black on the outside, white within, and replete with spherules of a glossy black. It differs from S. *tuberculosa* in being larger, black, and compressed, in being white internally, in having more numerous spherules, and in growing on the external bark of decaying branches of trees. Bolt.

obduc'ta. 23. S. Stalkless, aggregate, somewhat tomentous. Bolt. *Plate* 125. Sibth. S. *tomentosa.* Relh. With.

—— On decaying branches. 8—2. *Bull.* 492. 1.

Obs. The whole cluster is about the size of a brown mustard-seed, and adheres by its base to the inner bark, forcing its way through the outer. The white tomentous matter falls off, as the growth advances, and leaves the surface naked and black.

ni'vea. 24. S. Very white, clustered, tubercled. Hoffm.

—— On the bark of trees. Relh. 6. 7. *Hoff.* 6. 3.

Obs. The tubercles are small, ventricose, truncated and perforated at the top. When the outer coat is separated they appear entirely black. Hoffm. The spherules are concealed in a conical somewhat fleshy substance, their mouths being very near together. Pers. Tent.

lycoperdoi'des. 25. S. Compound, convex, mostly solitary, pith mealy, black, rind tawny, friable. Lycoperdon *variolosum.* Lin. See page 415.

—— Decayed bark of trees. 1—12. *Weig.* 3. 2. a.

max'ima. 26. S. Very large, convex, very black. Haller.—Large, thick, black, marked with pustules above. Weber. Dicks. 1. 23.

— Stumps of trees. 1—12. *Bull.* 487. 1. *Bolt.* 181.

Obs. The seed vessels are spherical, and placed immediately under the bark of the plant, to the inside of which they adhere by their mouths, after the internal substance is destroyed. Bolt.

fraxin'ea. 27. S. Black, roundish, convex, dotted (the inside greyish, with darker concentric circles, d. $\frac{1}{2}$ to 3). Haller N. 2192. Nearly sessile, pustular. Relhan. Sph. *concentrica.* Bolt.

— On decaying trees. 1—12. *Bolt.* 180. *Sow.* 160.

Obs. Sessile, reniform, with minute punctures on the outside, tawny, the inside brittle, greyish with darker concentric circles, seed-vessels urn-shaped, seeds black. See Bolton.

28. S. Black, convex, flesh black. LIGHTF. Stalkless, aggregate, tubercled, brown, spherules of the same colour. BOLT. *tuberculo'sa.*

— Decayed branches of hazel. 9—4. *Bolt.* 123. 1.

Obs. It is constantly brown, both within and without; is from one-eigth to one-sixth of an inch in diameter, and is very prominent. It always grows on the inner bark, and bursts the outer. The spherules are very minute, and arranged at equal distances under the common cover. BOLT.

29. S. Stalkless, clustered, globular, ash-coloured, rugged, large. BOLT. *rugo'sa.*

—— On fallen elm branches. —— *Bolt.* 123. 2.

Obs. This fungus is from $\frac{1}{4}$ to $\frac{1}{2}$ inch in diameter, is as hard as wood, and brown within, the spherules are too minute for the naked eye, under a glass they are found placed immediately under the coat or rind.

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31. S. Aggregate, somewhat compound, irregular, perforated, greenish (when dry whitish, or ash-coloured). WEIGEL. WEBER. BOLT. *Plate* 126. See Lichen *pertusus*, page 288. *pertu'sa.*

32. S. (Flat, circular). Coriaceous, tawny, branched, branches spreading, subdivided. *riccioi'dea.*

—— On dead branches. 2. *Bolt.* 182.

Obs. 1. From a centre it sends off, so as to form a circle, numerous simple, bifid, or trifid branches or segments, of a coriaceous texture, of a fulvous brown, or strong orange colour on the outside, and white within. The seed-vessels are not visible to the naked eye, but when a little magnified, they are found to be lodged immediately under the bark and are slightly prominent on its surface. See Bolton.

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— Decayed branches of hazel. 9—4. *Bolt.* 123. 1.

Obs. It is constantly brown, both within and without; is from one-eigth to one-sixth of an inch in diameter, and is very prominent. It always grows on the inner bark, and bursts the outer. The spherules are very minute, and arranged at equal distances under the common cover. BOLT.

29. S. Stalkless, clustered, globular, ash-coloured, rugged, large. BOLT. *rugo'sa.*

—— On fallen elm branches. —— *Bolt.* 123. 2.

Obs. This fungus is from $\frac{1}{4}$ to $\frac{1}{2}$ inch in diameter, is as hard as wood, and brown within, the spherules are too minute for the naked eye, under a glass they are found placed immediately under the coat or rind.

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Obs. 2. I have to regret, that I was unable to procure the *Tentamen Dispos. Meth. Fungorum*, and the *Commentatio de Fungis Clavæformibus*, published by C. H. Persoon, at Leipsic, in 1797, before the whole of this work was nearly printed. And this, I trust, will be deemed a sufficient apology, for not having made more references to them. In the latter the *Club-shaped Funguses* are divided into 10 genera, with the subjoined names and characters.

1. SPHÆRIA. *Recept.* various; Spherules, when dry, hollow; when moist, filled with jelly, or a gelatinous fluid (consisting of distinct cases.

2. Hermæum. *Pileus* (analogous) none; *Stalk* simple, or branched, (echinate) covered with subulate bodies.

3. Merulius. (One family only of this genus is *clavæform*, the pileus coalescing with the stalk into a similar obconical form, and this might perhaps not improperly be separated from the other *Merulii*, as a peculiar genus under the name of *Gomphus*.)

4. Leotia. *Pileus* equal, nearly orbicular, somewhat involute, the margin free.

5. Spathularia. *Pileus* compressed, somewhat membranous, decurrent on both sides of the stalk.

6. Geoglossum. *Club* fleshy, generally compressed, margin prominent; contiguous to the stalk.

7. Clavaria. *Club* simple, or branched, fleshy, cylindrical, continuous with the stalk.

8. Acrospermum. *Clubs* tremella-like (gelatinous), elongated, somewhat cylindrical, simple and branched.

9. Merisma. Branched, coriaceous, compressed, generally hairy at the extremity.

10. Isaria. Byssus-like, simple, and branched, generally covered with a mealy powder.

—— Ure'do. *Fungus* parasitical. *Pericarp* none. *Powder* mealy, under the cuticle of plants which bursts after some time with an even margin. Pers. Tent.

1. *Under the epidermis of leaves or stems.*

longis'sima. 1. U. Fructifications linear, straight, very long (an inch or more), powder brown, discharged from the upper surface. Sow.
—— On Poa *aquatica*. Autumn. *Sow.* 139.

frumen'ti. 2. U. Fructif. lineari-oblong, powder brown black. Lambert. Lin. Tr. vol. iv. p. 194.
Blight. On the culm of wheat. Aut. *Sow.* 140.

Obs. The four following species are given from Persoon's Tentamen, on a presumption that they will be found on the respective plants, growing in Great Britain, on a more careful examination.

Heliosco'piæ. 3. U. Scattered, globular, yellow. Pers. Tent.
— In the leaves of Euphorbia *helioscopia*.

Fa'bæ. 4. U. Roundish, brown, Pers. Tent.
—— In the leaves of the common bean. ——

Var. 2. Oblong, nearly linear, in the stem of the same plant.—The powder is included in the blistered epidermis, as if in a capsule.

5. U. Circular, yellow with a white margin. *Ro'sæ.* Pers. Tent.

—— Frequent in rose-leaves. ——

Obs. This species is mentioned as being found abundantly in the leaves of Rosa *centifolia*. The epidermis or cuticle, in which the powder is included, is prominent in the form of a white case. Pers.

6. U. Effused, depressed, concealed, reddish brown. *al'nea.* Pers. Tent.

—— Under the cuticle of Betulus *Alnus*.

2. *Under the epidermis of the parts of fructification.* (Ustilagines.)

7. U. Powder abundant, black, in the spikelets of the grasses. Pers. Tent. *segetum.*

Var. 1. Hordeæ. Pers. Tent. On barley. Powder concealed. *Tessier Traité des Maladies des Grains, p.* 306. *fig.* 2—4.

—— 2. Avenæ. β. Pers. Tent. On Oats. *Tessier Tr.* p. 336. Reticularia *segetum. Bull.* See p. 422.

Smut. On oats. 7. 8. *Bull.* 472. 2.

—— 3. β. Pers. On wheat. Lycoperdon *Tritici.* Bierkander in Act. Suec. An. 1775. p. 326.

Obs. 1. Every one, especially in var. 2., would at first sight assert with Bulliard and others, that the powder is intermixed with *filaments*, and enclosed in a *capsule*; but it will appear upon a more accurate investigation, that the fibrils are formed from the seeds being fallen into a powder, and that the *glume*, by being so much distended, has assumed a silvery whiteness, and the form of a covering. Persoon.

Obs. 2. I shall add the following species from Persoon, on a presumption that they will prove indigenous, when the plants are carefully examined.

8. U. Powder abundant, brown, on the receptacles of Tragopogon. *Tragopo'gi.*

—— Within the cal. of Tr. *pratense.* Summer.

9. U. Powder purplish violet, in the anthers of sickly flowers. *viola'cea.*

—— On Silene *nutans.* —— ——

ADDITIONS AND CORRECTIONS.

Page.	Line.	
9	1	For 90 read 91.
10	28	Read, gibbous on one side at the base.
11	12	Before the Observation insert,
		nudiflo'rus. 3. C. Sheath one-leaved, radical, tube of of the corol very long, leafless, stigma in 3 deeply laciniated segments enclosed within the flower. SMITH.
		Naked-flowering Cr. Meadows. 9. 10. *E. Bot.* 491.
14	4	Read *Park.* 1194. 5.
15	41	Read *dactylon.*
16	20	Read Spiked culm erect.
17	16	Add,
		Obs. Gmelin's genus of *Calamagrostis*, divided from *Arundo* merely because the calyx is single-flowered, seems to us unnatural, and the name is totally inadmissible, being compounded of two already in use, *Calamus* and *Agrostis.* ENG. BOT. 520.
23	14	For 2 read 6.
	36	For *Martin* read *Martyn*, & passim.
26	35	Add, near Bradford, Yorkshire, Mr. Hustler.
28	24	Read *F. Dan.* 916.
30	7	For Corastium read Cerastium.
31	27	For berry-like read berried.
32	5	Read EPIME'DIUM. *Pet.* 4. *Nect.* 4, incumbent.
	11	For 4-celled read 2-celled.
35	40	Read *F. Dan.* 423.
37	10	Read, *Seeds* 2, 3-toothed (naked, crowned by the calyx. WITH.)
	25	For *succica* read *suec'ica.*
39	5	In the margin read *den'sum.*
	8	For peduncles read petioles.
	19	In the margin read *pectina'tum.*
41	23	For *Centaurium* read *verna.*
47	5	After *angus'tifolia* add ?
48	7	After *viola'ceum* add ?

Page. Line.

48 29 Read *F. Dan.* 434.

49 last Read *Blackw.* 274.

54 17 Insert,

petræ'um. 5.* R. Racemes, when in flower erect; when in fruit, pendulous. JACQ. Lit. mis. ii. 36. — Pierce Bridge, Durham. ROBSON. *Jacq. Ic. r.* 39.

55 22 Insert,

ver'na. 2.* G. Cor. 5-cleft, funnel-shaped, longer than the stem (a bifid scale between the segments), root-leaves crowded, larger. (Cor. 5-cleft, hypocrateriform, crenate, segm. toothed at their base, leaves clustered, ovate. SMITH.)

Spring Gentian. Teesdale Forest. 4. *E. Bot.* 493.

32 Add,

Obs. Gentiana *collina* is now ascertained to be only a starved var of Campanula *glomerata.* ROBS.

57 14 Read *Seed* cochleate.

58 42 For 326 read 329.

59 11 After *leptophyl'la* add ?

24 After *Jacquin* for *A.* read *hort.*

33 For 33 read 333.

60 9 For ovate-lanceolate read ovate, laciniated.

65 32 Insert,

Var. 2. *laciniata.* Leaflets laciniated. *Ger.* 2422. 3.

Obs. Mr. Robson is of opinion that this is a distinct species of Sambucus from its habit, but he has only seen it in a cultivated state.

69 11 For XII. read XI.

73 18 Read *sero'tinum.*

91 32 Read AR'BUTUS.

96 21 For serrated read striated.

38 Add,

Obs. The true A. *juniperina* aud *laricifolia* have not been found in England. E. BOT. 512.

98 22 After *con'ica* add ?

100 32 Add,

—— Mr. Robson has examined a very great number of the flesh-coloured var. of L. *dioica* and *vespertina*, and also of the common red-flowered sort without meeting with one hermaph. flower. But he has frequently found herm. flowers in the white-flowered; their styles are much shorter than in the female plants, and the germen, he believes, never comes to maturity.

110 14 Read Hawkshead.

Page. Line.

113 25 Add,

Obs. This is believed to be a distinct species by Mr. Robson, who has cultivated it for some time under the name of *G. intermedium*. He informs me that the flowers are smaller than those of *G. rivale*.

114 24 For XII. read XI.

119 23 Before naked insert almost.

120 9 Read *Nect.* o.

123 22 Read LA'MIUM.

124 7 Read ORIG'ANUM.

125 25 Read GLECO'MA.

137 35 Add,

Obs. M. *sylvaticum* has been found near Middleton in Teesdale, Durham, by Messrs. Hardiman and Oliver. Ross.

144 26 Add,

Obs. I am informed by Mr. Robson that *C. grænlandica*, by cultivation in a rich soil, becomes *C. officinalis*, but if kept confined in a pot, retains its diminutive size.

148 6 For ; smoothish, read, smoothish ;

150 19 Insert,

tenuifo'lium. 4.* S. Leaves very entire, lowest tripinnatifid, highest entire. (Leaves smooth, nearly entire, the lowermost once or twice pinnatifid, the uppermost undivided. SMITH.) B. *muralis* Huds. With. Curt. Eruca sylvestris, RAY syn. 296.

Wall Rocket. On walls. P. 6—9 *E. Bot.* 529.

Obs. This plant has been known to English Botanists by many different names, yet no one has hit on the right syn. of Linnæus. The spreading calyx makes it a Sisymbrium; so that there is no occasion to recur to the uncertain mark of the nectariferous glands; and Dr. Smith has ascertained it to be S. *tenuifolium* Lin. S. *murale* is a very different plant. E. BOT. 525. See Brassica *muralis*, p. 148.

164 33 Add,

Obs. The remark of Mr. Afzelius respecting T. *procumbens* and *agrarium* of the English authors is confirmed by Dr. Smith. ROBSON.

last For *J. Aust.* read *Jacq. hort.* i. 60.

170 5 For ONOPOR'DON read ONOPOR'DUM. & at p. 180. 10.

171 20 For ACHIL'LEA read ACHILLE'A.

173 11 Read

Obs. Wiggers, Sibthorp, and Symons have, &c.

32 Add,

Obs. L. *palustre* of Lyons, to which Dr. Withering has applied

Page. Line.

the name of *Taraxacon* is thought to be scarcly more than a var. by Dr. Smith; who suspects that L. *Taraxacum* γ. of Hudson is a distinct species. See E. Bot. p. 310.

178 16 Read marginal scales.

186 6 Add,

Obs. 2. C. *heterophyllus* Lin. is believed to be quite a different plant. The *heterophyllus* of English Authors does not amount to a variety. The root-leaves of C. *helenioides* are frequently divided, hence part of the character, viz. "none laciniated" should be omitted, but both sorts proceed from the same root. ROBSON.

43 Add,

Obs. This is perfectly distinct from S. *arvensis*. ROBSON.

183 23 Read flowers scattered.

25 Read *F. Dan.* 254. And line 36. *F. Dan.* 859.

185 15 Add,

Obs. The habitat. given is erroneous, the plant found there by Mr. Manby was only the outcast of a garden, as I am informed by Mr. Robson. It has been found about Hoddam Castle, Annandale, &c. LIGHTF.

32 For *Cal.* read *Cor.*

186 22 For dentato-serrated read dentato-sinuated.

187 5 For 178 read 278.

188 11 Read, and that T. *hybrida* would rarely, if ever, produce fertile seeds, unless T. *petasites* grew in the vicinity.

192 7 Add,

Obs. This is only a var. of V. *tricolor*, the char. "leaves ciliate with strong hairs" being inconstant. The plants grow wild on our moors with flowers of different colours, viz. yellow, straw-colour, blue, purple, and variegated with all the above colours; but cultivation has proved them to be all one species. ROBSON.

194 32 The species are wrong numbered.

196 10 For crenate read crenulate.

197 30 In the margin read *rubra*.

199 6 For 3-cleft read 5-cleft.

200 6 For BAX'US read BUX'US.

40 After petalled insert *Pist.* 100.

216 24 After MERCURIA'LIS strike out the whole of the char., and read M. *Cal.* 3-leaved. *Cor.* 0. *Stam.* 9—12. F. *Cal.* 3-leaved. *Cor.* 0. *Styles* 2. *Caps.* 2-grained.

224 4 For 146 read 1146.

231 31 For See Ag. *umbelliferus* read *Pileus* veined underneath.

237 45 Add,

Obs. I strongly suspect Polypodium *Lonchitis* Lin. to be only a young var. of *aculeatum*, as a specimen of what I always considered as the latter, and which grows with it, is labelled P. *Lonchitis* by Dr. Smith. ROBSON.

239 33 After WITH. read —See Weis Pl. Crypt. p. 316. & Müller Fl. Frid. p. 193. n. 841. *Tab.* 2. f. 2.

249 32. Add,

Obs. The granules of the powdery heads, and the follicles observed in the *Musci* and *Jungermanniæ*, which were formerly considered as female, and are now, by Hedwig, &c. considered as male organs, are by Gærtner, for various reasons, believed to be neither, but *buds* capable of becoming young plants, when placed in proper circumstances. Introd. page 22, &c.

266 36 For *undula'tum* read *undulo'sum.*

285 last Add,

tessella'tus. 16.* L. Crust grey, cracked, whitish about the tubercles, tuberc. immersed, black, prominent, smooth. SMITH.

—— On brick walls. Mr. D. TURNER. *E. Bot.* 533.

Obs. The whitish portions crowd one another frequently into tolerably regular hexagons. E. BOT.

coarcta'tus. 16.** L. Crust grey, cracked, shields black, flat, with an elevated, white, mealy margin, when young drawn close over the centre. SMITH.

—— On brick walls. Mr. D. TURNER. *E. Bot.* 534.

Obs. When young the fructification has the form of minute white downy specks, the black part being concealed by the white margin. E. BOT.

288 14 For *sphæroi'cles* read *sphæroi'des.*

324 39 Read *F. Dan.* 821.

337 6 After *Schæf* read 238.

340 42 After 1008. add 2.

341 to 1 Add the following new species,

toal'itus. 33.* A. Gills decurrent, very pale flesh-colour, irregular, pileus white, flattish, compound, 2 to 4 coalescing (d. 2 to 3), stalk white, several connected at the base (h. about 1).

—— Clustered, Burks near Halifax. g. *Bolt. dr.*

Description. The *Root* a mis-shapen lump; *Stalk* white, solid, several uniting near the base, and separating about the middle, sometimes united through their whole length, white, firm, and solid within. *Gills* long, pretty broad about the middle, running out into a narrow decurrent base, irregular in disposition, and of very pale flesh-colour. *Pileus* white, smooth, vellumy, flat at top, deflected at the rim, two, three, four, or more united together into one. *Curtain* none. *Wrapper* none. BOLT. MSS.

344 20 Add the following new species,

panno'sus. 59.* A. Gills fixed, white, 2 in a set, acuminate at the base, pileus nearly hemispherical, mouse-colour, margin striated, inflected, (d. 2,) stalk dead white with downy scales (h. about 2, d. about $\frac{1}{4}$).

—— In the Burks near Halifax. 9. *Bolt. dr.*

Obs. The infant plant ovate, inclosed in a thick downy wrapper, which tears as the plant advances, and remains for some time on the pileus and root in grey fragments.—*Root* swoln, soft, and spongy. *Stalk* of a dead white, and as it were covered with downy scales, solid at first, afterwards hollow.—*Gills* white, 2 in a set, broad near the extremity, narrow at the base, where they terminate in a point, the shorter truncated. *Pileus* mouse-coloured, vellumy, margin striated, inflected. *Flesh* white, spongy. *Curtain* none. BOLT. MSS.

349 33 Add the following new species,

conca'vus. 88.* A. Gills fixed, tawny brown, 3 in a set, distant, pileus darker, concave, centre bossed, margin horizontal, stalk thicker and bluish in the middle.

—— In the Shrogs near Halifax. 9. *Bolt. dr.*

Descrip. The *Root* is an irregular lump, sending off a few grey fibres. The *Stalk* 6 or 7 inches high, white above and below, where it is smallest, very pale blue about the middle, where it is swelled out like a pitcher, or the seeding stem of an onion, solid, and white within. *Gills* 3 in a set, large, remote, and of a tawny brown. *Pileus* highly elevated in the centre, the sides much raised, but becoming horizontal at the margin. No specimens were found in their young state.

352 1 Add the following new species,

purpu'reo-fus'cus. 108. A. Gills bluish purple, changing to brown, 3 in a set, pileus flat, thin, red purple becoming dirty brown (d. about 3), stalk brown, ascending (h. about $1\frac{1}{2}$, d. more than $\frac{1}{4}$).

—— On the waste of an hay-rick. 9. *Bolt. dr.*

Descrip. The *Root* is brown, hard, and solid. The *Stalk* brown with a mixture of dull purple, solid at first, afterwards hollow, short, leaning much in the older specimens. *Curtain* none. *Gills* arranged 3 in a set, broad near the base, point-

ed at the outer extremity, thin, tender, and of a bluish purple in the first stages, changing to brown at last, fixed to the stalk at first, becoming loose afterwards. *Pileus* thin, almost destitute of flesh, at first of a red purple, gradually changing to a dirty brown. Bolt. MSS.

358 9 Add,

Obs. The gills are sometimes somewhat decurrent, so that this species might have been referred to the preceding division.

357 18 After 9 add *Park.* 1817. 4.

382 6 For 72. 3. read 71. 2.

151 3 For 222. read 459.

38 18 Add, *Cow Quakes.* Pastures. P. 7. *Mart.* 39.

*** The Author hopes to obtain pardon from his Readers, for any errors, which have escaped his notice in this work; and will be happy to have them pointed out, that he may be enabled to correct them, should another edition be called for.

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of the

Genera, &c. contained in the Second Part.

Obs. In this Index the *Synonyms* are frequently given; and are distinguished from the Specific Names, by being printed in Italics.

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